

THE MICHIGAN FARMER,

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Relating to the Farm, the Garden, and the Household.

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The Farm.

A Few Notes by the Way.

Horses at Farmington.—During a brief visit to Farmington and vicinity, we stopped to visit C. W. Greene, and looked over his stock. Mr. Green has not been increasing his stock of horses the past year. At the present time he has two very fine stallion colts, one a four year old and the other three years, sons of Sir Archy, which he has broken, and are fine tempered, compact spirited medium sized horses. He also keeps Farmingtonian, who is proving a very successful stock horse, that has done much good service, besides doing his share of the heavy work of the farm. The past year the crop of hay in the country around Farmington has been very light and of little value. This was owing to the severe frosts of last June, which injured the grass and stopped its growth, fully as much as it did the wheat, and stock generally feel the effect of it; there not being at this season as many head as we usually find in this neighborhood.

Mr. Wixom, whom we stopped to see on our route into North Farmington, had a yard of very fine stock, which were looking well, and as if they had been well taken care of during the winter. He has got an infusion of shorthorn blood into his stock, which he thinks improves the quality and size.

Mr. J. H. Button has his mansion located on the highest land there is in the town, and he has a noble prospect upon all sides for many miles. His boys exhibited with some degree of satisfaction a very fine three year old colt, half brother to Magna Charta, and which has much of the style, color, and appearance of the famous trotter. Mr. Button has graded up most of his cattle by the use of short horn bulls, until his yard now presents a very fine quality of stock, that are valuable either for beef or milk. We noticed a very fat heifer that he has since killed.

As we came back we dropped in on Squire Wolcott, who was a resident of Farmington when there was not an acre of the fine farms now lying around cleared up, and all was forest as far as he could see.

At Mr. Eldred's stock farm of Springbrook, we found many improvements since our last visit. Yards and paddocks have been enclosed for the young stock, which separate them into such divisions as may be convenient or necessary on account of age. Mr. Eldred has added to his stock the past winter a large and handsome jack, of about thirteen hands in height, and with him he has a jenny and her colt. He is preparing to start this season in mule breeding. He has now a pair of very fine young mules not quite a year old, and we learn that he has also made arrangements to procure from Ohio another jack of the very finest and largest stock raised in southern Ohio. In the stables we found a large number of colts; some of which were from Kemble Jackson, and which were in good condition, healthy and growing. There are also on this farm twelve brood mares, all of good size, and good quality for brood stock, and in foal to Kemble Jackson. There is also upon this farm a large stock of cows, which it is designed to cross with Ayrshire blood at an early day, with a design to improve the milk qualities.

Mr. Eldred has also commenced to lay the foundation of a small flock of southdown, and cotswold sheep, and has now on hand some fine ewes of both breeds. These breeds he means to cross for the purpose of bringing the mutton into market, and testing the profit of the business.

At Mr. A. D. Powers we found the premium colt by Stone Plover, which continues to show as well as it did at the fair. The dam is a mare by Sir Archy, and the grandam was Mr. Green's Eclipse mare that died last spring. Thus both by dam and sire it is well bred, and we think will prove that "blood will tell," when it gets to be somewhat older.

Mr. Joshua Simmons we found had been erecting a very fine well planned stock barn, which was not yet completed. It was sixty feet long by thirty-six in width, and planned to have the feeding passage through the centre wide enough for a team to drive through from end to end. The sides were furnished with doors four feet wide to admit the stock to their boxes or stalls. The bays on each side over head were eight feet above the ground, and the floor of the passage was ten feet. We hope to see the barn again, when the plan is more fully carried out. Here also we found a son of Bletsoe, the imported shorthorn, a large and somewhat coarse three year old bull, but he has made some improvement in the stock of this vicinity.

We called at M. L. Brooks', who has now at his place the imported bull John O'Gaunt 2d, a half brother to the John O'Gaunt 2d owned by F. W. Stone of Guelph Canada. This bull is white, and very compact, not of large size, but fine in the bones, and evidently a good handler. We are told that when in moderate condition his weight has been 2200 pounds. Mr. Brooks has on hand a fine lot of south downs, that he is crossing with a large and very handsome cotswold buck. Mr. Brooks has some fine young stock bred by himself from shorthorns imported by his father, which possess the Yonondio and Defiance strain of blood.

Mr. J. D. Yerkes, when at his place, showed that he was doing something in stock by exhibiting his young bull from Guelph, which is certainly a handsome animal of much substance, and being from stock that is noted for its fattening quality at an early age, it will prove of service in any herd. Mr. Yerkes is desirous of selling him, because his stock has nearly all been bred from old Guelph. Amongst the poultry we saw here some very beautiful wood ducks, which were quite tamed and seemed to be an acquisition to the poultry yard.

At Northville Captain Gardner has brought in from Ohio a flock of fifty cotswolds, which he meant to try on his farm which lies adjacent to the village. The buck is a very fine animal, and must weigh fully close upon 300 pounds, and the ewes are selected with care. This is the largest flock of pure cotswolds in the state we believe.

Disease in Cattle at the East.

A disease has been prevailing for some time amongst the cattle in the neighborhoods of North Brookfield and Braintree, Mass., which has already caused many severe losses, and has recently become quite alarming to cattle holders. Mr. Cheney states in a letter to the Boston Cultivator, that he wrote some time ago to his correspondent in Holland to know if pleuro pneumonia or Rinderpest was prevalent in the section whence he had stock imported last season. He was answered that neither of those diseases existed, but a disease was prevalent there known by the name of "Phthisis."

Although the governments of France and Holland have offered large sums to whoever shall discover a remedy, none has been found down to the present time. Cattle infected with this disease suffer a long time before it is observable, and when first noticed they are usually sold to the butcher, in order to be killed for food.

There is, however, much benefit to be derived from inoculating the healthy animals. This inoculation is done near the end of the tail. The hair is clipped off, the skin cleaned, and two incisions made with a lancet, into which the virus is introduced. The virus must be obtained from the lungs of a cow suffering from the disease, and killed for the purpose, and not from an animal that has died in a natural way from the effects of the disease. The manner of obtaining it is to cut off a portion of the lung between the healthy and infected parts—the part marbled like water and blood is wrung into a vessel and allowed to stand one day, when the bloody part will sink to the bottom, and a lemon colored liquid will remain upon the surface. This, if free from scent, is fit for use, and may be preserved in a vial. In cold weather it will keep eight or ten days before becoming too corrupt for use, while in warm weather it will hold good only one or two days.

Two drops introduced into each incision will produce, in a week or fortnight, and in some cases a longer time, a pock quite similar to that caused by the inoculation of persons with the cow pox. When no pock appears it is presumed that the animal is not susceptible to the disease. When the tail of the animal becomes much swollen, an incision is made, in order that the infectious matter may run out, and the wound is from time to time cleansed with water.

The benefits resulting from this discovery are such that where the peasants formerly lost from 50 to 60 per cent. of their cattle, they now lose only one per cent.

Experience in Pasturing Grass Lands.

We have seen several statements recently which have been strongly in favor of not permitting a hoof to be set on meadow or grass land, because the crop of hay was so deteriorated and lessened by the practice. Some said that the crop of timothy had been increased to four tons per acre by the treatment of not pasturing and not cutting the aftermath or second crop. B. B. Nichols of Stamford, Connecticut, in the Boston Cultivator gives the following as the results of his trials and experiments on this subject, which shows that there is another side to the story. He says: "I have two meadow lots which have been mowed six years in succession. They are both what is called upland, of about equal quality as to soil, and lie near each other, only one small lot intervening. They were laid down to grass at the same time, and both seeded with timothy or herdsgrass, with a sprinkling of clover. In one lot, a few weeks after mowing each year, I turned in my cattle and fed off the after-growth or rowen, close to the ground. I put no manure on it, except what the cattle dropped while in pasture. The first year there was a very heavy growth of grass, mostly clover; the second year, a tolerable crop of good timothy and redtop, which increased in quantity and quality each succeeding year, until last year, when it produced but little more than half the usual burden of hay.

"In the other lot, not a hoof has been turned during the whole six years." A part of the lot is planted with young trees, which obliged me to keep the cattle out, in order to save the

trees. The after-growth, of course was allowed to rot on the ground. The crop of hay, principally clover, the first year, was fully equal to that in the other lot; but each succeeding year it decreased in quantity and quality, and the last season it would scarcely pay the expense of harvesting, it being mostly grass of inferior quality—the timothy and clover having almost entirely disappeared."

"My present opinion is, that meadows ought to be fed off some, though not closely, in order to give the new grass in the spring the benefit of the light and heat of the sun.—I can in no way account for the diminution in the crops from year to year, only that the old fog so covered the roots of the grass, as to shade it from the rays of the sun in early spring. I am not good at theorizing; I prefer dealing in facts."

To Obtain Weight of Live Cattle.

Experienced drovers and butchers are in the habit of buying cattle, estimating their weight on foot. From long observation and practice they are enabled to come very nearly to the actual weight of an animal; but many of them would be apt to err, if at all, on the right side; while the less experienced farmer always stands the greatest chance to get the worst of the bargain. To such we would recommend the following rule to ascertain the weight of cattle, which is said to approach very nearly the truth in most cases. The proof of this to the satisfaction of any farmer, is easily determined at most of the annual fairs where scales are erected, and at numerous other points in the country.

RULE.—Take a string, put it round the breast, stand square just behind the shoulder blade, measure on a rule the feet and inches the animal is in circumference; this is called the girth; then with the string measure from the point of the tail, which plumbs the line with hind-part of the buttock; direct the line along the back to the forepart of the shoulder blade; take the dimensions on the foot rule as before which is the length, and work the figures in the following manner: girth of the animal, say six feet four inches, length five feet three inches, which, multiplied together makes thirty-one square superficial feet, and that multiplied by 23 (the number of pounds allowed to each superficial foot of cattle, measuring less than seven and more than five feet in girth,) makes seven hundred and thirteen pounds. When the animal measures less than nine and more than seven feet in girth, thirty-one is the number of pounds to each superficial foot.

Again, suppose a pig or any small beast should measure two feet in girth and two along the back—multiplied together make four square feet, that multiplied by eleven the number of pounds allowed to each square foot, of cattle measuring less than three feet in girth, makes forty four pounds. Again suppose a calf, a sheep, &c., should measure four feet six inches in girth, and three feet nine inches in length, which multiplied together, makes fifteen and a quarter square feet, that multiplied by sixteen, the number of pounds allowed to cattle measuring less than five and more than three feet in girth, makes two hundred and forty-four pounds. The dimensions of girth and length of horned cattle, sheep, calves, and hogs may be exactly taken in this way, as it is all that is necessary for any computation or any valuation of stock, and will answer exactly to the four quarters, sinking offal. The rule is so simple that any man with a bit of chalk can work it out.—Much is often lost to farmers by mere guess work of the weight of stock, and this plain rule is well worth their attention.—Valley Farmer.

Trenching and Subsoiling.—One of the members of the Eastern Pennsylvania Fruit Growers Society, stated that he had had ground trenched about two feet deep at a cost of \$60 per acre, and the crop of potatoes the following year was so heavy as to pay the whole original cost. Another said that he had found horse labor subsoiling to the depth eighteen inches, cost him about \$25 per acre, and hand labor, twenty-four inches in depth, \$65 per acre.

Farm Fences.

Eleven years ago the coming spring, I made a post and rail fence which I consider the best wooden one I have ever known; and believing it of sufficient importance to the farmer, and for his benefit, I will give the plan of its construction.

The posts to be split out of large white, or burr oak timber, seven feet long, of good size, and as nearly square as possible. I have sometimes used round posts of suitable size—say from eight to ten inches in diameter—of oak, black walnut or locust. Set the posts ten feet apart, from centre to centre, two and a half feet in the ground. In filling, be sure not to put vegetable mould around the post at the surface. After the posts are well set, and in line, hew off any rough places. Most of the posts that are split require very little if any hewing, consequently it is less trouble and expense to do it after they are set.

The rails or bars are to be split from large oak logs, eleven feet long. The logs should be sawed so that the rails may be of one length. The rails should be about two and a half inches thick, and of good width, say from five to ten inches. To prepare the rails, I place two solid blocks of good size, four to six feet long, about ten feet apart; then one man holds the rails on the blocks, while the other hews them. Hew the slices about one foot, one side straight and the opposite beveled. The straight side on the forward end of the rail goes next the post; on the other end it is the opposite, so that the two beveled sides come together when placed on the post. Then take two pieces of scantling, two by four inches wide, five to six feet long, and bore with one and one-fourth inch auger—say five holes in each, the distance you wish your rails apart, and drive pins in them about eight inches long; place these upright beside the first two posts, where you begin to build your fence. Then lay on these plus your first pannel, with the widest rails at the bottom, and a stiff heart rail at the top.—Take a three-eighth inch bit and bore through the rails at the first post; then, with a sledge hammer or stone hammer, drive a four or five inch cut spike; then move your back stick with pins beside the next post forward.—Again place your rails for the next pannel and spike them in like manner, and so on. The splice where the spike passes through into the post, is about two inches thick, that is, one inch through each rail.

This kind is the cheapest and best farm fence I have ever seen. It is very durable and substantial; not subject to be blown down by the wind, or to careen or sag. It is unlike what is commonly known as a post and rail fence, where the posts are morticed; the posts being nearly square have better bearings. In making this fence, there is a great saving of timber, for it requires only eight rails to the rod to make a five rail fence; whereas, in making the "worm fence," it takes twenty, and it will not last as long, because where the rails cross each other they soon decay. Again, it requires less timber for a bar than for a good sized rail. My opinion is, that rails spiked on to posts in the manner above described, with the heart of the rail invariably up, will last at least one-third longer than those laid up in a crooked fence. With my present experience and knowledge of this kind of post and rail fence, I would have no other in this section of country, as a farm fence, except perhaps around the house. It takes a very little, if any more timber, for there is no loss for slabs; and to say the least, is more substantial, and I believe it to be a great saving of time and nails.

The expense for spikes will not, I should think, exceed two and a half to three cents per rod. There are other considerations why this kind of fence is cheaper and preferable, such as hauling logs to mill, &c.; but I will not say more at present, for my article is much longer than I intended.—J. A. Scott, in Toledo Blade.

The bee keepers of Cleveland and vicinity have issued a call for a convention, for the purpose of consultation and interchange of views in this important branch of industry which they have charge of. The meeting is to take place at the court house in Cleveland on the 15th instant.

Economy, or why Farmers Complain of Hard Times.

MR. EDITOR:—My occupation has been that of a farmer, exclusively, so far, through life. But I never had the assurance to arrogate to myself so perfect a knowledge in all the various branches connected with prosperous farming as to interest, or enlighten, any one on this great system of individual, and natural wealth. But for the last few years, having had a more extended acquaintance, and a more minute and enlarged observation of the various systems of agriculture adopted by other farmers, induces me to communicate to your readers, with your permission, through your columns, my system, varying somewhat from some parts of theirs. All pursuits of business, to be successful, must be conducted with systematic order and economy. In consequence of the varied climate, varied products, and the varied productiveness of the soil of different compositions, there cannot be any one system of farming laid down in an agricultural treatise, which can be unvaryingly pursued. Therefore I shall confine my suggestions, to such parts of the great system of farming as all are interested in, and such as all can unite in, on common ground, for mutual instruction and advantage. For without a free and general interchange of views between practical farmers, through yours and other valuable journals in our country, much of the advantages of experience, of experiments and scientific research, would be wholly excluded from the masses, and agriculture would be barren in means to render it honorable, profitable and progressive.

There are many farmers who, annually, make little or nothing beyond expenses, on good productive farms. Ask them why it is so; the answer is ready; "I have had bad luck;" when in a majority of cases, it is owing to bad management. For instance, a farmer has purchased his farm mostly on credit. A team he must have, so reflecting upon his indebtedness, he concludes to buy a small, light, cheap team, at a low price; instead of paying a fair price for a larger and more able one; hires a man, pays him full wages; (twelve to fifteen dollars per month) and starts the rat team; plows about half of a day's work in a day; turns a furrow not exceeding four inches deep, skins his land; sows a stinted quantity of seed; gets from five to ten bushels of wheat per acre, and all other crops encountering the same bad management, fall short in the same proportion; loses proportionally the value of the hand's labor; does a half farming business, and attributes all to his Providential bad luck. When in truth and fact, the whole catastrophe, was caused by over cautiousness, in not investing fifty or seventy-five dollars more in the purchase of a large heavy team, of double the capacity which would turn up double the depth of mould, and twice the quantity of surface; and keep the gentleman at the plow handles stepping all day, it not being necessary for those frequent resting periods, for the large team, that is strictly necessary for a small light team. He would get double the labor from his hired hand, accomplish double the amount of farming; and obtain double the yield of produce; which is virtually doing two summers' work in one; all of which is the direct and certain result of increasing (by fifty or seventy-five dollars) the purchase money for a team of full ability.

In plowing heavy sod ground for wheat, it becomes necessary to double the team, especially in a dry time, so that the plow may run at least eight inches deep, turning a depth of mould that will remain mellow while the crop is maturing; the roots will then penetrate deep, and stand the drouth, producing a plump berry, and a full crop—whereas a single team, would move but half the depth of furrow, which, under the influence of sun-heat and frequent rains, would soon assume its natural solidity,—becoming impervious to the required penetration of grain roots, the soil thereby refusing to remunerate one half of a crop.

You ask the farmer why he does not double teams in such heavy plowing? his answer is, "I am in debt, I cannot afford it." It is clear to my mind that they cannot long afford to farm in this way. The more they are in debt, the more need of doubling teams and plowing deep; which will double the yield, and amount of profits. Clover and timothy seed, generally bear a high cash price; and in many instances are sown too sparingly, and the crop is short in the same proportion. A few shillings worth of seed added to the small amount sowed, would have paid dollars by the extra increase of yield. Clover, by the laws of vegetation, will self-seed, if not pastured too close in the fall; and in the course of two or three years the ground

will be seeded thoroughly. By this time many farmers are so shortsighted, or giving no thought to the amount of damage they sustain by such management, conclude best to plow this clover under, that would in all probability have yielded two tons per acre every year, without any of the expense of plowing, cultivating, harrowing, seed and sowing, harvesting and threshing, as with wheat raising. If the same practice prevailed to plow up wheat in the spring, the damage would be less than in the case of destroying the clover meadow, for several reasons; first, a crop of clover is produced every year, that of wheat once in two years—the clover enriches the land, while wheat impoverishes it. A well seeded layer of clover, or clover and timothy, should not be disturbed with the plow, so long as it produces a bountiful yield, and not until it has formed by the enlarging, and multiplying of the roots, a firm and heavy sod; which, when turned under and thoroughly composted, makes one of the cheapest and best fertilizers for vegetation to feed upon. This land should not be seeded to grass again, after being plowed, for three years, at least, but kept under the plow until the sod manure is perfectly pulverized and mixed with the soil. During which time another field should undergo the same process in grass growing and sod making, and so on alternating from grass to grain. The seeding of land for meadow and pasture, is somewhat precarious; many circumstances intervene to disappoint; sometimes the seed does not germinate in consequence of early drouth—when it does, it is liable to winter kill. When a good layer is obtained, it should not be plowed up, so long as it produces a good burden—keep it growing, "a bird in the hand, is worth two in the bush."

There are many farmers who plow up a well seeded piece of ground, which has the previous years yielded them two tons of choice hay per acre, when if his neighbor should plow up the same number of acres of good wheat, he would think him insane. In my opinion I should call him equally as insane for plowing up his clover and timothy.

The following tables will show the loss, sustained by plowing up a lot well seeded to clover or clover and timothy, for the purpose of raising a crop of wheat:

Breaking for wheat per acre.....	\$2 00
Cultivating once.....	75
Harrowing once.....	75
Seed.....	1 50
Drilling.....	1 50
Harvesting and stacking.....	2 00
Threshing and marketing.....	2 50

Whole expense.....	\$9 50
Proceeds twenty bushels of wheat per acre, at one dollar per bushel.....	\$20 00
Expenses deducted.....	9 50
Leaves net gain in two years.....	\$10 50
Equalling \$5 25 per year.....	

Cutting one acre of grass with machine.....	\$ 50
Baling with horse rake.....	1 25
Labor, curing and drawing to barn.....	1 25
Drawing to market.....	2 00

Whole expense per acre.....	\$3 98
Proceeds 2 tons at \$5 00 per ton.....	\$10 00
Expenses deducted.....	3 98
Net gain on hay crop.....	\$12 07
Deduct profit on wheat crop per year.....	6 25

Leaves excess profit on favor of hay crop per annum.....\$ 6 82

Not estimating fall feed, or a crop of clover seed, from one to two bushels per acre. If a soil of land is too light and barren, to produce a luxuriant growth of grass, it should be enriched before seeding, with a good supply of muck, or barn yard manure. Plaster is essential to the growth of clover on all dry soil; and especially so on our oak openings. Clover hay is preferred for sheep, and timothy and clover for most other stock. Sheep will winter better on good clover hay without grain, than on the best of timothy, with a gill of corn a day per head.

At this age of agriculture, it is a conceded fact, that green clover tops, when plowed under, and thoroughly composted, produce but a mere moiety of substance for the increase of products. The main fertilizing properties being almost wholly included in the mass of thick, interwoven grass roots, composing the firm heavy sod. Therefore, a green dressing of clover tops, is the most extravagant and wasteful mode of obtaining manure—and especially so at any time preceding the third year's growth of clover; as at that time, there is but little sod formed.

Mr. Editor, we know that this practice prevails to a great extent, and why is it so? Is it because "daddy did so?" or have they got some non-progressive farmer for their polar star?

Economy dictates a widely different course of management. Let us see the figures on the loss sustained by plowing under green clover. I estimate as above:

3 tons per acre, cutting, curing and marketing per acre.....	\$3 98
Proceeds 2 tons per acre, \$5 00 per ton.....	\$10 00
Expenses.....	3 98

Net proceeds.....\$12 07

Now if the sod contains nearly all the fertilizing qualities, as is believed—the process

of green dressing with a heavy clover top, produces a dead loss of \$12.07 per acre, which could have been saved by mowing the clover before plowing. And the prospect of the coming wheat crop would be equally flattering. One acre of green clover grass, that would, when cured, make two tons of hay, if put in one pile, in a green state, and become well composted, would not, it is thought, make more than two loads of manure; which if spread evenly over one acre of ground, would not be sufficient to materially affect a crop of grain growing thereon. Such kind of management will not pay three per cent on the investment for a farm—and he who thus manages will remain in debt, and have abundant cause to complain of hard times, and scarcity of money; when in fact produce is readily turned for cash at a fair price. Some eighteen years ago a farmer could not get forty cents a bushel for his wheat, half money and half trade, and other produce on the same dicker. A gold mine exists within twelve inches of the surface of all good productive land, and with skillful management, economy, and a never failing perseverance, will roll out a competency in as bright shining dollars, as ever were produced from the mines of California or Australia. If a person is able to put gold knobs on the horns of his cattle, it is no one's business. It circulates his surplus money, and supports the mechanic; but if pressing debts remain, pay nothing for fancy, as no profitable returns will ever be realized from the investment. It is from the farm that we derive our profits, to cancel all our engagements, not from a fancy house, carriage or team. If it were not trespassing too much, I should like to say a word on the economy of raising stock. But this article is already extended beyond the limits prescribed when I commenced writing; I will therefore close it, by saying, that I know by experience, that a young man can buy a farm principally on credit; support a family, pay interest, taxes, and principal too, in a reasonable time. But it will require energy, industry and economy; close thinking, and a weekly receipt of an agricultural journal of his own locality; from which he can make copious draughts for intellectual advancement, in all that relates to the science of successful farming. And with the aid of a wife possessing the above qualifications, and whose fondest attachments are family and home, will be blest with a well improved farm, and a pleasant home in which to assuage his cares, in his declining years.

Marengo, March 12th, 1860.

E. T. BRYAN.

Experiments in Feeding Horses.

MR. JOHNSTONE, Dear Sir,—I have been a reader of the Michigan Farmer for a long time, and welcome its weekly visits as an old and tried friend. I have been of late very much interested in several communications on feeding stock, and now wish to relate to your many readers two experiments which I have made during the past year.

I keep two horses, and commenced by feeding them on a mixture of corn and oats (2 bushels of oats to 1 bushel of corn). I gave each horse fifteen pounds of the above mixture per day; my horses required this amount to keep them in condition. After feeding the above for about four months, I got the same mixture ground and wet it up with cold water before feeding. I soon found it necessary to reduce the feed to 12 pounds per horse per day, and they even gained then in flesh. After feeding this for four months, I again made another change, and wet up the same kind of feed with boiling water and let it stand from 15 to 30 minutes before feeding, and then give it to them warm. The consequence was I found it necessary to reduce the amount per day to ten pounds for each horse, and am still feeding the warm feed, and will say that I never had my horses in so healthy a condition or so capable of performing labor on any other food.

The amount and quality of hay, and the labor performed, has been the same through the year.

I am satisfied that two bushels of grain ground and cooked is worth more for food for any animal than three bushels of the same grain unground and uncooked.

Truly Yours, J. J. OAKLEY.

Detroit, March 25th, 1860.

Sowing of Millet.—J. B. Cornwall, a Canadian agriculturist, writes that he would prefer twelve quarts of seed in sowing millet to any less quantity, and that he would sow broadcast, where he was raising feed for soiling purposes. The beginning of June is considered the best time for sowing. Where millet is to be sown for seed, it should be drilled, as the plant is thus better enabled to ripen its seed, and may be kept cleaner and freer from the seeds of weeds.

Potatoes under Straw.

There have been several trials made of growing potatoes with only a covering of straw, and some of which seem to be a decided success, if the reports made are strictly true. After an examination of the process which has resulted the most favorably, the conditions seem to be that the land should be worked first till it has become light and mellow, and that the covering of straw should be thick enough to perfectly protect the surface from the effect of drouth. To do this well, it seems that the shorter the straw is the better—that which has passed through a thrashing machine is very fit for the purpose, but it seems to us, that if the straw used for covering were all passed through a cutting machine it would be still better. Every one knows that a layer of cut straw or chaff that has been thoroughly wet or moistened, will retain that moisture in spite of the driest and most scorching sun for a considerable time. The surface of the straw will be quite dry, yet if stirred, the straw will be found quite moist or wet, at a depth of an inch. This moisture besides promoting the growth of the potato, also prevents the effect of the very great warmth of the hot season of July from affecting the growth of the potato and ripening it at a season when it has just begun to grow well, and to make size. The straw, too, acts as a mulch, and supplies the vegetation of the potato plant, with sufficient strength to keep it green and growing for a much longer period than is usual with the crop in this climate. The process of preparation consists simply in plowing, and harrowing the land in the usual method, then marking out shallow drills with the plow, setting the potato seed in these drills, and then hauling on the straw and covering the whole land with it to the depth of about four inches. The potatoes come up through the straw, and need no weeding or hoeing, or after cultivation. With those who have the straw, a trial of half an acre or more during the coming season, especially on land that is rather sandy, would not be expensive and might be found profitable. Who will try it and send us an account of the result?

S. Mosher, of Latonia Springs, Kentucky, gives the following account of a trial of this kind in the Ohio Valley Farmer:

"A plat in my garden, about fifty feet square, of well manured clayey loam, was nicely spaded up and made fine and smooth. It was then marked out in shallow drills, two feet and a half apart, and potatoes (of the pink-eye variety) planted whole, two feet apart in the drills, and barely covered with earth. The whole patch was then covered with light, dry wheat straw, which had been very much broken by its passage through a thrashing machine, and the same spread lightly and evenly with a pitchfork, to the depth of about two feet. Several showers occurred soon after the potatoes were planted, which settled the straw very considerably, and in due time the vines came up through the straw, and soon covered the entire surface with the rankest vegetation.

"Nothing more was done to the patch till the vines were killed by frost in autumn. At the usual time of digging potatoes the dead vines were all pulled, and removed; then, with a potato fork, the layer of straw—which was pretty well rotted, and not more than four or five inches in thickness—was carefully removed. To my great surprise, there lay the potatoes on the surface, literally covering the ground, and almost as clean as though they had been washed. They were picked up and measured, but the quantity I do not remember. This much, however, I well recollect, that I never raised so good a crop by any other mode of culture. They were of very uniform size, and of good quality."

The Plum Insect.

H. E. Peters of Scio gives his practice to prevent the ravages of the curculio in the following letter.

Dear Sir,—We have had the Farmer for some time, and like it so well, that we wish to contribute to the information it is circulating throughout the country, and therefore herewith send you how I prevent the plums from being injured, and secure a crop. Soon after the plum tree is in blossom, take about four quarts of ashes to each tree, and throw them in the tops. This should be done when the tree is in full blossom, and in the morning when the dew is on. I have tried this plan to my satisfaction, and found it effective in protecting the fruit. My theory is that the fly or insect deposits its nit or egg in the side of the blossom, and that this nit or egg becomes the worm that does the damage when the plum is formed.

Yours truly, H. E. PETERS.

MICHIGAN STOCK REGISTER.

SHORTHORNS.

Numbers with an "s" following them refer to the English Herdbook—all others refer to the American Herdbook, unless otherwise noted.

NO. 126.—**EMPERESS 1st.** White, with red ears. Calved Dec. 24, 1855. Bred by Reber & Kutz, Lancaster, Fairfield co., Ohio. Owned by A. U. Sutton of Tecumseh, Michigan.

Stro, Orion 782, by General Worth 11524a, out of Althea by Romulus 925.

Dam, Ada, by President 2d, 885, he by President 883 out of Isabella by Rover 981; Countess by imported Comet Halley 1855a.

1 g. dam, Miss Marshall, by Marshall 691, by imported Antonio.

2 g. dam, Lass, by Rantipole 2478a.

3 g. dam, Merry Lass, by Symmetry 5882a.

4 g. dam, Daisy, imported by Walter Dunn of Ky.

NO. 127.—**EMPERESS 2d.** Roan. Calved June 10th, 1858. Bred by and owned by A. U. Sutton of Tecumseh, Lenawee co., Mich.

Stro, Snowball 8444½, by Prince Albert 2074, out of Mary Miller by imported Magnus Bonum 4927a.

Dam, Empress 1st, by Orion 782.

1 g. dam, Ada, by President 3d 885.

2 g. dam, Miss Marshall, by Marshall 691.

3 g. dam, Lass, by Rantipole 2478a.

4 g. dam, Merry Lass, by Symmetry 5882a.

5 g. dam, Daisy, imported by Walter Dunn of Ky.

NO. 128.—**PRINCESS.** Roan. Calved July 16, 1859. Bred and owned by A. U. Sutton of Tecumseh, Lenawee co., Mich.

Stro, Duke 448, by imported Halton 556 (11552) out of imported Bowkie, by the 4th Duke of York 10167a.

Dam, Empress 1st, by Orion 782.

1 g. dam, Ada, by President 2d, 885.

2 g. dam, Miss Marshall, by Marshall 691.

3 g. dam, Lass, by Rantipole 2478a.

4 g. dam, Merry Lass, by Symmetry 5882a.

5 g. dam, Daisy, imported by Walter Dunn of Ky.

NO. 129.—**SUNRISE.** White bull. Calved June 12, 1859. Bred by A. S. Brooks of West Novi.

Stro, Governor, imported, by Daybreak 11388a.

Dam, Camilla, imported, by Fusileer 11499a. Camilla was calved December 18, 1858, and was from the celebrated herd of Mr. Tanqueray of Hendon, England.

1 g. dam, Young Sall Gwynn by St. Thomas 10777a.

2 g. dam, Sall Gwynn by Prime Minister 2046a.

3 g. dam, Cripple by Marmion 406a.

4 g. dam, Daphne by Merlin 430a.

5 g. dam, Nell Gwynn by Layton 866a.

6 g. dam, Nell Gwynn by Phenomenon 491a.

7 g. dam, Princess by Favorite 252a.

8 g. dam, — by Favorite 252a.

9 g. dam, — by Habback 819a.

10 g. dam, — by Snowdon's bull 612a.

11 g. dam, — by Waistell's bull 669a.

12 g. dam, — by Masterman's bull 492a.

13 g. dam, — by the Studley bull 626.

Governor, the sire of Sunrise, was sired by Daybreak, 11388 of the English Herdbook. He was imported by J. Brooks, Esq., of Livingston Co., N. Y. On the dam side he goes back as follows:

Garland by Brunswick 6814a.

1 g. dam, Graceful by Lyeurgus 7180a.

2 g. dam, Marcella by Ramunculus 2479a.

3 g. dam, Sackbut by William 2640a.

4 g. dam, Clarion by Childers 1824a.

5 g. dam, No. 25 by Richard 1876a.

6 g. dam, — by Jupiter 342a.

7 g. dam, — by Charles 127a.

8 g. dam, — by Windsor 695a.

9 g. dam, — by Chilton 186a.

10 g. dam, — by Colonel 152a.

HOME NOTES.

Drainage in Jackson County.

A committee of the Jackson County Agricultural Society consisting of E. J. Connable, S. O. Knapp and James Dupuy, have recently made a report on drainage to the society, in which they urge very strongly the economy of draining. In fact there is no county in the State, that would be more benefited by an extensive system of drainage than Jackson.

In this report we find the following: "We would invite the attention of farmers to a few fields, upon the farm of Hon. M. Shoemaker, two miles south of this city, showing the immediate and direct benefit derived by marsh from the drains, where marshes of the most wet and forbidding description, are changed at once into grass lands of the very best quality.

"The undersigned have not alluded to the relative value of wood drains, from the fact that though the material may last a number of years, they are likely to become soon filled with sand and other obstructions, and become entirely useless; and that experienced drainers never recommend their use.

"The same objection applies to those of stone.

"Your committee are aware, that the cost of tiles, with a doubt of the utility of drains in the minds of many farmers, will in many cases prevent their use. To such, we would say, lay a few rods of wood or stone drain, and after you have seen the beneficial effects, we have no doubt it will lead to the general adoption of tile drain, upon your wet lands.

"The cost of drain tiles, heretofore, has amounted almost to a prohibition of their use in this State, but this difficulty has now been overcome. We are happy to say that our enterprising fellow-citizens, Messrs. Porter & George, are manufacturing all the different varieties of drain tiles, at their works, one mile north of this city, and offer them as low as can be purchased in any part of the country."

A Black Hawk for Kalamazoo.

The Telegraph states that B. S. Gleason of Kalamazoo has bought the Black Hawk stallion named "Tom Howard," from Major E. S. Howard of Rutland, Vermont, for the sum of three thousand dollars. "Tom Howard" is a son of Hill's old Black Hawk, and is of high reputation as a stock getter.

The Garden & Orchard.

The Essentials to Success in Culture.

BY T. T. LYON, PLYMOUTH, MICH.

We have now arrived at one of the most important points in the management of the pear, viz., the planting of the trees. If they have been selected of the ages recommended in a previous article, and carefully taken up, very few of the fibrous roots will have been lost, and they may be so planted as not to be seriously checked by the operation.

It is not the purpose of the writer to repeat what has been so often and so well said, respecting the necessity of deep and wide holes for the reception of the trees; of composts for the enrichment of the soil; and of mulch for the shelter of the surface, and the retention of moisture; as planters, generally, are believed to be fully satisfied of the importance of proper attention to these particulars.

With the pear on free stocks, as with almost every other tree, it is necessary to remember the oft repeated direction, to plant *only* as deep as the trees stood in the nursery; but, with quince-rooted trees, this rule must be, to some extent, disregarded. The quince is especially liable to the attacks of the borer, and it is also found that when a portion of the stock is left above the surface, its bark soon becomes so indurated that it does not swell freely, to accommodate itself to the growth of the pear. For these reasons, the most experienced cultivators urge the necessity of always planting such trees with the stock entirely beneath the surface; and, as the quince will usually put forth roots up to its junction with the pear, the objection to deep planting is, to a great extent, obviated. Still it will, obviously, be the true policy of the planter to reject such trees as were worked so high that, in so planting, the original roots would be placed too far beneath the surface. With regard to the proper depth at which to plant quince-rooted trees, a variety of opinions has been expressed by those most experienced in such matters. Hon. M. P. Wilder, who may, appropriately, be termed the father of Dwarf Pear Culture in this country, a few years since, broached the idea that they should be, always, planted with the point of union from two to four inches beneath the surface, for the purpose of keeping the quince stock out of harm's way: insisting that, when planted at this depth, the dissimilarity of the stock and graft would insure the early fruitfulness sought, while the pear would, ultimately, put forth roots above the point of union, by which means the longevity of the standard would be superadded.

More recently, there has appeared to be a tendency, among cultivators, to disregard this latter consideration, and only to plant deep enough to be sure that the point of union is fully covered. This position is occupied by Mr. Barry, of Rochester, who ranks among our most intelligent, extensive, and successful planters of dwarfs. Should experience prove that the practice recommended by Col. Wilder is effectual in securing the longevity so much to be desired, without, at the same time, sacrificing early fruitfulness, it must commend itself to the adoption of every planter. So far as the short and imperfect experience of the writer goes, it indicates merely the necessity of having the quince stock well covered.

After planting the trees the next important point which demands attention is the adoption of a suitable system of pruning. Whatever is to be the ultimate mode of management, the first step of the process should have for its object the production of a crop of branches, at the desired height to form the commencement of a top. The bark of the pear tree, in a young and growing state, is believed to be more sensitive to the extremes of heat and cold than that of almost any other hardy tree; hence the oft repeated injunction for the formation of low heads applies to it with peculiar force. To this the naturally upright or pyramidal growth of most varieties presents an additional inducement. While, therefore, we are instructed to form the tops of apple trees at from three to five feet from the ground, with the pear, they should be commenced even lower—at from one and a half to three feet for standards; and for dwarfs from six to twelve inches, varying slightly, in compliance with the more or less upright habit of the variety.

Trees, transplanted at the age of one year, will, if well grown, usually, consist of a single shoot of several feet in height; and such will merely require to be headed down to six or eight buds above the desired height. With trees of greater age, the chances are that they will be composed of a trunk comprising the first year's growth, with the addition, perhaps,

of two or three shoots, arising from near its extremity, which (if the first year's growth was not headed down, as will probably be the case) will, doubtless, be at from four to six feet from the ground. Where a top is already commenced at such an objectionable height, there is no possible way of amendment. We must either leave it at this height, or lose the additional growth by cutting it back to the desired height; notwithstanding which, as the older buds have become dormant, or may be lost entirely, the probability of a satisfactory result is considerably diminished. This heading down of the top, at planting, will, to some extent, restore the balance between the roots and the top; so that the tree may not become exhausted in the endeavor to supply the material for growth and evaporation during the renewal of the roots.

Many persons suppose that their trees are safe if, after planting, they put forth their leaves promptly, but this is by no means the case. The most trying time for newly planted trees is found to be the hot and dry weather which is so very likely to occur during the succeeding summer; and, if the roots are so badly injured, or cultivation shall be so neglected that the trees do not promptly recover their natural vigor, we may, also, add the freezing and thawing of the next winter. From this we may infer the importance, not to say necessity, of the thorough after culture of newly planted trees. On most soils the surface will become hardened during the heat and drought of summer; and, if neglected, will, also, be sure to produce a crop of weeds. These causes will favor the withdrawing of moisture from the roots, and the consequent death of the tree. From these difficulties, constant and thorough after-culture furnishes the only really reliable remedy. Mulching is often recommended as a complete panacea; and, if applied thinly, of some light material, after the soil has become thoroughly warmed, it will act as a shield against the effects of sun and drought, and as a check upon the growth of weeds; but the experience and observation of the writer lead to the conclusion that all early, or heavy mulching, as often practiced, with stable manure, is not only a waste of fertilizing material, but, also, too often, a check upon the early recovery of the trees. Indeed, it is the opinion of the writer, supported, also, by that of the most eminent fruit-growers of the country, that no mulching can be made to fully take the place of efficient and frequent surface culture; but a thin coating of straw or other light mulch, may be applied, say in June, after a thorough stirring of the surface soil, with decided advantage. It must, however, be carefully watched, should drought occur during the last of summer, or the first part of September, as, even at that early period, the ripening and drying of their usual food sometimes drives the field mouse to attack the bark of the young trees, under shelter of the mulch. All such material will have, by this time, fully produced its beneficial effect for the season, and should be at once removed; as it furnishes a convenient residence for mice, beneath the winter snows. The pruning of Pear trees already planted, will be made the subject of the next article.

Hot Beds.

Every one who has a garden of any size, and can procure the material, should have a hot bed in which early vegetables may be started. A frame twelve feet long, and six feet wide, made of inch and half stuff, with the back two and a half to three feet high, and the front from 12 to 15 inches, is large enough to give a good variety of almost every kind of vegetable that a family will need. The sashes are usually made each three feet wide, and contain five rows of six inch glass, the lights laid upon each other like shingles. Four such sashes will cover a twelve foot frame, and the whole can be put together and made by any one used to handling tools. The *Gardener's Monthly* gives the following directions for managing the manure, and making the bed:

To making a hot-bed, long stable manure should be employed, and if it can be turned a couple of times, before heating violently each time, before permanently using, the more regular will be the heat in the bed and the longer will it last.

A south-eastern aspect is the best for a hot-bed and it should be well sheltered from winds on the cold quarter.

If the ground is dry, the soil may be dug out about a foot in depth, but for very early forcing it is best to have the whole above ground, as when sunk the cold rains or thawing snow collects in the pit and cools the materials.

The foundation for the hot-bed should be about eighteen inches wider than the frame to be set on it when finished, and the manure

regularly laid on till about the height of three feet has been obtained, when the frame may be set on. It is not well to tramp the manure too heavily, or the heat will be too violent. Sometimes the manure is very "strawy," in which case it should be watered with drainage from the manure heap, or the heat will be "a good time coming," when it would be very inconvenient to "wait a little longer."

When the manure and frame are both fixed, a half inch of soil should be thrown over the manure under the sash to absorb the gross gases that would else be too strong. For a few days after, the heat will be too violent, but when the thermometer indicates a temperature of 90 deg., operations may begin; but the usual aim is 70 deg. When the bed shows signs of getting below this, linings of stable manure must be applied round the frames, one and a half feet thick, and if boards, shutters, mats, or any similar material can be spread over these linings, the heat will be maintained much longer.

The New Hardy Grapes.

As many of our readers will probably set out a few grape-vines the coming season, the following brief description which we find in the catalogue of Mr. Bateham of the Columbus nursery will be found useful for reference. We may observe that the kinds he marks as tender or late ripeners in Ohio, will not be any earlier or more hardy in this latitude of Michigan:

Delaware—Everywhere acknowledged to be the best of hardy grapes; bunches and berries rather small, but very numerous, of a beautiful light-red color, very sweet and delicious, resembling the finest foreign grapes in vinous aroma; vine of moderate growth, perfectly hardy, fruit free from rot or mildew, and ripening earlier than any other fine grape. *Note*.—As there have been spurious plants sold for this variety, we would state that ours were propagated from the original vine, belonging to Mr. Heath, near Delaware, Ohio, from whom we purchased all the cuttings and plants he could spare two years ago.

Diana—Resembles the *Catawba*, but two weeks earlier, hence more valuable; vine quite hardy, more vigorous than Delaware; berries not quite as large as *Catawba*, but fair size, fine reddish lilac color; flavor very sweet, some say, "surpasses the *Catawba* in its best state." We place this next in value to the Delaware.

Concord—Resembles the *Isabella* in color and character, but the vine is more vigorous and hardy, and the fruit ripens ten days earlier than that variety; it is also less liable to mildew or rot, and hence better adapted for unfavorable soils, and careless treatment. Berries large, purplish black, sweet, juicy, and good—well adapted for a market fruit.

Hartford Prolific—Similar to Concord; said to be more productive; vine very vigorous and hardy; fruit ripens full two weeks earlier than *Isabella*; berries grow good size, second quality—apt to fall from the stem in handling when fully ripe.

Rebecca—Resembles the *White Chasselas*, or *Sweet Water* grape, from which it is probably a descendant, but more hardy and less liable to mildew than its foreign prototypes. It originated at Hudson, N. Y., about ten years ago, and thus far proves hardy there and exempt from mildew; hence it promises to be a valuable acquisition; though perhaps not as reliable in all cases as the foregoing sorts. The vine is rather a slender grower; bunches small, but compact and heavy; berries medium, greenish amber yellow, sweet and delicious; ripens ten days earlier than *Isabella*.

Anna—A white grape, originated from seed at Newburgh, N. Y., and highly commended by Mr. Downing, Dr. Grant and others, but not yet sufficiently tested in other localities. Growth and character of vine resemble *Catawba*; fruit said to ripen earlier; color greenish white, amber in the sun; flavor very sweet and rich.

To Kalon—(Wyman, or Carter)—A very strong growing vine, fruit large, black, and showy; resembling the *Union Village*, but vine more hardy; said to ripen full as early as the *Isabella*.

Union Village, or Shaker—Vine immensely strong grower, requiring much space, and not quite hardy north of 40° latitude. Fruit black, and both bunches and berries are very large, resembling *Black Hamburg* in appearance; quality about like *Isabella*.

Herbmont, or Warren—Another very rampant grower, and belonging too far south to be quite reliable in this climate; succeeds well around Cincinnati and Chillicothe. Branches large, berries quite small, dark blue, very juicy, sprightly, delicious flavor.

Logan—A new Ohio grape, supposed to

be a seedling of *Isabella*, but three weeks earlier than that variety, and the earliest good grape known. Fruit resembles the *Isabella*, but somewhat smaller—valuable for its earliness.

Marion Port—Introduced to notice by Rev. J. N. Shepherd, of Marion, Ohio. Vine perfectly hardy and very productive; fruit rather small, black, sweet, high flavored, slightly astringent, good for table, and said to be excellent for making a wine resembling *Port*.

A New and Valuable Winter Pear.

THE BEZI MAI.

M. de Jonghe, of Brussels, has published a notice of a new and very valuable winter pear which he has originated and named the *Bezi Mai*, because it does not ripen till the month of May. The tree has now fruited for four years, and he has observed with great attention its quality, and after two years more observation, he thinks he will be in a position to complete the description of this new acquisition to the list of pears. The seedling when it first fruited, was eleven years old. The fruit gathered from the 23d of September to the 20th of October, all ripened exactly in May following, and even those which were blown down were so firm that they suffered no injury, but ripened with the rest. The flesh of the ripe fruit is described as being as buttery as the *Easter Beurre*, and as close as that of the *Glout Morceau*, and free from grit. The tree is thus described:

"At three feet from the ground it is four inches in diameter; at seven feet, to which height the stem is clear, the branches are allowed to proceed to form the head, the extremity of which is 20 feet high. The branches are firmly attached to the stem, and extend in a somewhat horizontal direction, the extremities of the shoots being slightly curved. All along the branches will be found long slender spurs which form fruit buds in the second year of their growth. The shoots which form latent eyes, which become developed at the base where a shoot has been removed, also bear fruit. This peculiarity is also found to exist in trees in the nursery, grafted for experiment on the pear as well as on the quince stock. In general the wood of the variety is not thick, but it is solid and hard. The bark of the stem and lateral branches is of a brownish green tinged with grey. The color of the shoots is a shining, brownish, olive green, more or less dark, and sprinkled with linear grey specks. The wood-buds are prominent, thick at the base, and pointed, of a coffee-brown color with grey pubescence. The leaves are more or less lanceolate, of a shining green color on the upper side, somewhat channelled, the margin finely toothed. The flowers are large, forming a cluster of seven or eight. The fruits, like those of all hardy varieties, set well. In the end of May, 1857, '58, '59, I observed clusters of three, four, and five fruits; and in the end of July or in August of a strong wind like that of the 25th of July, 1857, the large fruits which were not supported by leaning against the branches did not hold on. This is a drawback to the culture of this variety as a high standard. It would therefore be necessary to cultivate it as a dwarf, either on an espalier or against a wall, where it would attain a large size. Very fortunately, however, the variety forms very fine dwarf pyramids even in the first year, on either the pear or quince stock. I know few varieties which unite better with the quince, and form on it as well as well as on the pear stock such handsome pyramids."

WEIGELA ROSEA.—In all the long list of shrubs, new and old, we know of few we can so confidently recommend, as in every way worthy of general cultivation, as this beautiful variety of the *Weigela*. It is now well known and abundant in the West, and has stood the test of our winters in a most satisfactory manner. It is a neat bush of rapid growth, easily formed into a miniature tree. It is one of the easiest shrubs to cultivate, growing well on any soil, but seeming to prefer a dry, rich, sandy loam. It can be readily propagated from layers or cuttings. The flowers, which are produced in graceful and abundant festoons, are large, unique, beautiful and showy. It was introduced into England from China by the celebrated Portland, who says of it: "When first discovered this beautiful plant, it was growing in a mandarin's garden, on the island of Chusan, and literally loaded with its fine rose-colored flowers, which hung in graceful bunches from the axils of the leaves, and the ends of the branches."—*Prairie Farmer*.

THE PEACHES.—Peaches have suffered severely from the vicissitudes of the winter. When at Mr. Pardee's house, near Plymouth, a short time since, he said he at first thought his peaches had not suffered from the cold; a more recent examination satisfied him that the blossom buds were dead. We note that Mr. Page, of Washington, D. C., states that the peach trees in his vicinity are much injured, many of them killed. This is not owing so much to the severity of the winter, as to its vicissitudes, which have caused vegetation to suffer.

HORTICULTURAL NOTES.

St. Joseph Pomological Society.

The St. Joseph *Traveller* contains the proceedings of a meeting got up to organize a pomological society in that part of Berrien county. The meeting was well attended, E. Morton being chosen chairman, and A. D. Brown, secretary. A committee was appointed to draft a constitution and by-laws, to be reported at the next meeting.

Death of a Pomologist.

A. H. Ernst, a well known pomologist of Cincinnati, died on the 13th of last month. Mr. Ernst was a contributor to most of the agricultural and horticultural journals of the last twenty years, and did much to start the interest that is now felt everywhere in horticulture.

Soft Soap for the Borer.

The soft soap will not kill the borer after he has entered the wood, but will exclude the eggs. It should be just thin enough to form a good coat over the bark. Scrape the earth away somewhat from the foot of the trunk and coat the bark as high as the borer is ever found. The rains will wash it down sufficiently to cover all the exposed bark, if any is not supplied. The insect does not like to lay her eggs in the soap. It should be applied early in summer and be repeated once or more in a few weeks, according to the amount of rain which may have washed it off.—*Country Gent.*

Peach Orchard.

We learn that Capt. H. M. Brown, of St. Joseph, has purchased a twenty-acre lot lying on the lake shore near Mr. Dunham's, and that it is his intention to have it cleared and set out to peach trees during the coming season.

PLANTING RASPBERRIES.—Raspberries and blackberries which are planted out this month or next, should be set out to within a foot of the ground as soon as set out. "No fruit tree should be allowed to bear the year it is set out," as the fruit hinders a full growth of the plant, and is itself of little worth.

LINUM GRANDIFLOREM.—Joseph Kift, in the *Gardener's Monthly*, states that he lifts this plant in the fall and puts it in the greenhouse, where it blooms till spring, better than it does out of doors.

REMEDY FOR THE CURCULIO.—A gentleman of Lancaster introduced to the consideration of the Eastern Pennsylvania Fruit-growers' Society, a new remedy for the curculio, the composition of which he wished kept secret until it was tested. A committee were appointed to test the article.

SLOW GROWN TIMBER THE TOUGHEST.—I feel like taking exceptions to the editor's remarks in the January number, when he says, "Usually, the more climate or soil favors a luxuriant vegetation, the more brittle any given wood becomes." Now this does not coincide with my experience. That a strong succulent growth is more likely to be injured by a severe winter, is true; but if a good hard and tough piece of timber is desired, select it with a large grain, viz: that which has made the most rapid growth; this is the rule always used by me, in selecting a spade, for instance, where the handle is full as important as the blade; the timber that is the most rapidly grown takes my money.—*Wm. Adair, in Gard. Monthly.*

On Growing Sorghum.

In the first place procure a dry, rich, clean soil—clover or other sward land, or land that has been well tilled and manured in previous crops. Early in the season, plow deep and turn over well with a good plow. If it is clay land, by all means subsoil it, that is, with a subsoil plow following in the furrow of the first plow. Some will say, "I have not two teams, one to follow the other." That may all be true, but experiments have proved to a demonstration, that it will pay any farmer, in a case of that kind, to exchange work with his neighbor. Next, procure a good harrow, and when the ground is dry, thoroughly pulverize it; next procure good seed; better pay a high price for good seed, than get poor seed as a gift. Some say one quart of seed is enough for an acre. I would rather put on between half a gallon and a gallon, than less. I would rather pull up two or three stalks, than re-plant one. Some advise to plant it thin, and let it stool out.—I would rather have one good main stalk than three suckers; there ought to be at least three stalks on the ground, where you would have one of Indian corn. I prefer drilling in preference to hills. I consider the best method to get a good and paying crop, to plant in rows, from three to three and a half feet apart, say two stalks every nine or ten inches—or three stalks every fourteen or fifteen inches, that gives room to work between it with a hoe, if needed. The seed should be planted as near to the top of the ground as possible. If planted by hand, the ground should be marked off very shallow, with some light implement that will make one or more rows at a time, and the seed soaked twenty-four hours in warm water, then rolled in plaster. One inch of dirt is enough to put upon the seed. I use a one-horse corn drill, and have better success than my neighbors who plant by hand. The time for planting is as early in May as can be done, when the ground is dry and warm. It is useless to plant when the ground is cold.—A. H. OREN, in *Ohio Farmer*.

A Few Foreign Notes.

Peat Charcoal.

Peat charcoal is much used as a top dressing, and all that is necessary to prepare it is to make a heap, so as to admit a current of air to permeate through it until the whole mass is heated; then the peat being ready by a partial drying, it may be piled on the outside of the heap in such quantities as may be convenient. A kiln in this way may be kept burning for months, care being taken that the air holes which permit a slow combustion are closed or opened as the kiln seems to need it.

A Top Dressing for Grass Lands.

A top dressing for grass lands in spring is recommended in the *North British Agriculturist*, to consist of two hundred pounds of bone meal, to be applied immediately or as soon as the grass begins to start, fifty-six pounds of sulphate of ammonia in March, and fifty six pounds of nitrate of soda in April.

Steam Cultivation.

An agriculturist in Scotland who some years ago tried the application of a locomotive to the dragging of a mouldboard and plowshare, after trying the apparatus gave it up, he says, "The furrow slice turned by me was an accomplished fact, but the progress of the experiment led me to the conviction that he who would succeed in the practical application of inanimate power to the tillage of the soil, must dismiss from his mind every recollection of the plow, and frame his contrivance without a vestige of that tool in its composition." [Every experiment we have seen yet, convinces us of the correctness of this opinion. For the economical application of steam power, there must be some other mode of stirring the land than an imitation of the plow. All machines yet exhibited or used, employ more than half their power to propel themselves across the land, and are too cumbersome. What is wanted is a machine that will stir and break up the soil as finely and as evenly as possible, and leave it in the best possible condition for sowing. Where steam power is applied the work of both the plow and the harrow should be done at one operation; but as yet all the inventors have only attempted to do the work of the plow. It is evident that invention has not yet got upon the right track, in the application of inanimate power to the tillage of land. If invention had confined itself in making thrashing machines to the mere imitation of the common flail, we should be about as far ahead with the operation of thrashing as we are with the steam plow.—*ED. MICH. FARMER*]

Horse Breeding in Britain.

A writer in *Bell's Life* complains of the number of "weeds" that are being used to breed from. He says:

"We may be believed when we assert that notwithstanding the liberal sums given with the laudable intention of stimulating and improving the breed of horses throughout the country, that the present administration of those sums under the existing regime upon the turf, is merely a lavish expenditure, to defeat the very object which those grants were originally instituted to promote. To commence upon a proper basis, and one that will insure successful results, there must be a sweeping reform in existing racing arrangements, and one that will tend to the total annihilation of 'weeds.' Our general horses are fast losing stamina; the same class from which the multitude of coach horses were some years ago drawn, has been that which furnished our troopers. Since the rail superseded the road, breeders have had less temptation to be careful in the selection of sires than formerly existed, and the 'right sort' is not now so procurable as in those days. Coach horses with questionable legs and feet, and any malformation of form, were seldom purchased, and became a drug in the market. Coaching is now defunct, and with its dissolution vanished one of the best incentives that could exist to the promulgation of the doctrine, that soundness, size, and action were essential to success in breeding general horses. This being unquestionably the case, it appears strange that the wisdom or the rulers of a great people, would not, ere now, have hit upon some happy expedient to keep up that system in horse breeding which is most essential to the welfare and honor of our country, and the glory of our arms.

Preparing Cattle for Agricultural Shows.

At a recent meeting of the Ayrshire Agricultural Association, Scotland, a discussion arose as to a protest on an award made to a bull, which it was claimed had had his dewlap cut to give it a more symmetrical appearance. One of the members present observed that while he held all attempts at deception mean, still it was customary to improve an-

imals by sundry contrivances and operations. If a young animal was dropped with more than four teats, they cut off the supernumerary ones and leave the four remaining. It was quite customary among exhibitors, if the horns of an animal were not perfectly fashionable, to apply a horn screw and make them so. He had known cases, where animals did not exhibit perfect symmetry, of liquids being forced down their throats by bottles and otherwise, to make them appear perfectly symmetrical. He remembered being at a Show where a very fine animal was killed by liquid being in this way thrust down its throat. He thought the Association should guard against these and all other kinds of deception.

Preparation of Food for Stock.

The short crop of hay and fodder among the Scotch Farmers has put them on their taps as to the best means of economising their store of feed, and amongst them the question of the comparative cost of preparing food by grinding, pulping and cutting has been undergoing investigation. The *North British Agriculturist* remarks upon this subject:

"The practice of pulping roots and mixing them with cut straw has generally proved beneficial. The system is extending rapidly in some districts in England, but has not been adopted by almost any farmer in Scotland. Even in England the pulping of roots with the cutting of straw into chaff is comparatively new in practice. The slicing or cutting of turnips has been practised for years in most feeding districts both in England and Scotland; but the pulping system has not yet acquired a position among practical farmers. The cutting of fodder into chaff—hay or straw, is practiced by some farmers, but it has not come into general favor. It is upon combining the pulping of roots with the cutting of fodder that the highest economical results are secured. Both are parts of a system, and require to be combined. The one without the other will not secure the economical results. By pulping roots and mixing them with chaff—cut straw—one-half of the ordinary consumption of turnips can be saved, and the animals increase in weight about the same ratio. This has been determined by experiments, a few of which have been published.

"Experiments show that cattle of average weight consume daily of sliced turnip, white, about 160 to 180 lbs., of yellow 160, and of Swedes about 140 to 150 lbs., with straw *ad libitum*. Higher average consumptions have been recorded, but these may be taken as a general average. The increase of live weight from this rate of consumption of turnip, averages about 1½ lbs. per day. In some cases, the increase has reached 2 lbs. per day, but this result has generally been only secured when five to seven lbs. of oleaginous cakes were allowed daily. By feeding on pulped turnips mixed with cut straw, the same increase of weight has been obtained. The allowance of pulped turnips being 60 to 80 lbs. of roots mixed with about 20 lbs. of cut straw. In some instances, a proportion of hay has been mixed with the straw. There are also experiments whereby moistening the chaff with gruel made from oleaginous cakes or meals of the grains at the rate of about 5 lbs. weight of cakes and meal, has produced, along with 60 to 80 lbs. of pulped roots, an average increase of about 2 lbs. of live weight. It may therefore be assumed that by pulping roots and cutting straw, the consumption of turnip by the ordinary practice may be reduced fully one-half—the increased consumption of straw varying from 10 to upwards of 15 lbs. daily. Cattle are now generally fattened on a mixed diet of turnip, oleaginous cakes, and ground beans or oats, particularly during the last two or three months preparatory to being sold—the consumption being generally per day 160 lbs. of sliced turnips, 6 lbs. of cake and corn, the increase in the live weight being about 2 lbs. This increase of live weight may be taken as the increased value of the animal, or say one shilling per day. One half of the increased value meets the cost of the cake and corn, while 6d per day is left as payment for the turnip and straw consumed. By pulping the roots and cutting the straw, the consumption of turnips is reduced to about one-half, or the consumption of turnips amounts to about 3d per day, leaving 3d per head per day to meet the expenses of pulping the roots and cutting the straw into chaff. When horse power is employed, the expense will be considerably under hand labor; but in either case the saving of roots will more than meet the expense of preparing the food. The forming of gruel from the cake or meals to moisten the cut straw entails a certain expense, but the increased progress made by the stock more than covers this outlay, even when cattle are fed on sliced turnips. Those who have adop-

ted the system of feeding their stock on pulped roots, and cut chaff, speak favorably of the general appearance of the stock, and of the diminished liability to disease. No experiments have been recorded, if undertaken, as to the comparative immunity from disease of the animals so fed, compared with those fed in the ordinary manner; but there can be little doubt that the maintaining of animals in a more healthy condition is not the least important of the advantages which result from feeding on pulped roots and cut straw.

"In the feeding of horses considerable saving in the consumption of oats can be effected by giving horses pulped roots and cut fodder, whether the fodder be hay or straw. Even in the keeping of horses for fast work, a portion of the fodder can be given cut mixed with pulped roots. In breeding establishments of the blood horse, advantage is in some instances taken of the chaff cutter and pulping machine, the roots being mangolds or carrots; and the young stock are found to thrive better than by the more common method of feeding on corn and hay with a few carrots."

Chinese Sheep.

Some of our readers will recollect that we called attention about a year ago to a remarkable breed of sheep that was in the hands of a Mr. Pell, of New York, and known as the Chinese or Shanghai Sheep. This breed of sheep was introduced into England in 1854, and the following extract from a report made to the Society of Arts will show how the "poor beasts" were used up in that enlightened community:

"Mr. Rutford Alcock, H. M. Vice-Consul at Shanghai, having noticed the breed of sheep in China, saw at once their extreme importance to England, and wishing to place them in the best possible hands, shipped, in 1854, several of them as a present to H. R. H. Prince Albert, who, in April, 1855, presented them to the Zoological Society of London. Here they were seen and abundantly ridiculed by numbers of our intelligent and enlightened gentlemen-farmers and noblemen, who could not for the life of them see any merit in these poor 'celestials.' Such coarse woolled monsters (with ears) that were always bringing forth lambs at the rate of four or five at a time. Why, no really respectable English farmer would have them at any price. Such men as the lamented Earl Ducie thought otherwise, and, accordingly, some of this foreign importation found comfortable quarters at that nobleman's estate. Lord Ducie died, and his Chinese sheep died also. In the meantime, the others at the Zoological Gardens were becoming a prodigious nuisance; first one ewe had five bouncing lambs, then another had four equally lively, nice young Chinese in one day; two days after a third had four, making 13 lambs from three ewes. Such increasing multitudes would soon have filled the Zoological Gardens and Regent's Park also; but as it could not be allowed, the (then) secretary hit upon an effectual means of stopping such an inconvenient fecundity, viz., by using the unhappy little strangers as fresh meat for the lions, tigers, and wolves. Now, it can well be imagined, than not even the ever-producing Celestial sheep could stand such treatment long, and no one will be surprised to learn that at this moment, to the best of my belief, not a single individual of this truly valuable breed of sheep remains alive in England. I am sure many would ask, 'Was there not one clear sighted and intelligent man to raise his voice in favor of the preservation of this invaluable present of Mr. Alcock?' Yes, most certainly there was, and any one who will take the trouble to examine the Zoological Society's *Journal*, will find that a paper was read on the 26th May, 1857, by Mr. A. D. Bartlett, the Society's Gardens, from which I will give one short extract: 'My attention was called to these sheep from the fact of their great productive power; I find that they breed twice in the year, and produce four and sometimes five at a birth, the three ewes now in the Society's Gardens having this spring produced 13 lambs. These lambs are very easily reared by hand and are perfectly hardy. . . . Having submitted specimens of the wool of this animal to my friend Dr. Price, who kindly forwarded the same to Mr. Darlington, the Secretary to the Chamber of Commerce at Bradford, for the purpose of having it examined by the most competent judges, the following report from these gentlemen was received. They say, 'that the sample of the sheep's wool from China inclosed in Dr. Price's letter is a class of wool that would be extensively used by the manufacturers of this district for goods of low quality; that it appears to be a wool for combing purposes, and would now command about 1s per lb.' Mr. Bartlett then strongly advises this breed of sheep to be employed

for crossing with other races, but he pleaded in vain; and the objects of his solicitude are now no more. If I had not known cases very nearly akin to this of the Chinese sheep, I should not perhaps have said so much about this unfortunate business; as it is, let our blunder in this instance warn us against similar blunders in future. We have lost the breed and must recover it. I do not look at the Shanghai sheep for the quality of its wool (although that might be improved, and in any case must not be despised), but for its great fecundity, and the ready means it affords of getting up a flock of sheep. Let any one who understands arithmetic just calculate what a progeny ten such ewes and one buck might have in five years, then extend the calculation to ten years, and he will begin to have some idea of the value of such a breed on our boundless plains and hills in Africa, Australia, New Zealand, and British India."

How they Make Maple Sugar in New Hampshire.

Farmers who have large sugar-groves on their farms, I believe generally find it profitable to attend strictly to their business while the sugar season lasts. The period when the sap will begin to flow freely varies much with different sections of country, and with different years. In the New England States it generally begins between the middle of March and first of April. Farmers should have all their implements ready, so that they can tap as soon as the sap will flow freely. One of the principal reasons why so many who make a large amount of sugar every year, and yet make a dark-colored, inferior article, is lack of neatness. All the implements, from the least to the greatest, should be washed till they are thoroughly clean. And during the process of gathering and boiling the sap, all leaves, sticks, and everything that will tend to color it, must be carefully kept out. Without extreme neatness, it is useless to attempt to make good white sugar.

Everything ready, the next business is to tap the trees, which should be done with a half-inch bit, and the hole should not be much deeper than two inches at first, but afterwards it can be made deeper. The best spouts are made of soft pine and cedar, and should be driven into the tree no farther than is necessary to keep them from falling out. One or two spouts, according to the size of the tree should be driven into each tree. To catch the sap, wooden buckets will do very well, but I think those made of tin are much better, and easier kept clean; whether made of wood or tin, they should always be hung upon a large nail or spike just below the spouts. The reasons for having the buckets hung up are: first, there is less danger of the buckets getting turned over and blown away by high winds, and less danger of the sap being blown away as it falls from the spouts, and there is no danger of the buckets getting turned over as the snow melts from under them, which is the case when they are set on the snow, as many are. And second, sticks and leaves are less likely to get blown into the buckets, and mice and worms are less likely to crawl into the buckets after the sap. The sap should be gathered from all the trees as often as once a day if possible, and strained into the store tubs and then boiled as fast as possible, for the sooner it is boiled after gathering, the whiter will be the sugar.

The best boilers are long, narrow, sheet iron pans, set in an arch of brick or stone. They will boil away the sap faster, and take no more fuel than the old-fashioned kettles. After boiling to a syrup, which is when a few drops poured from a dipper fall in flakes, it should be removed from the pan, care being taken to allow none of it to get scorched, and strained into a suitable tub to settle. After standing for twelve hours or more, it should be poured out, carefully, to get none of the settlings, into a small kettle, and placed over a moderate fire. Some sweet milk should then be put in to raise the scum, which should be removed as fast as it appears. After this a hot fire should be made, and the syrup boiled until it is thick enough to cake, which is, when it will become hard and brittle when a few drops are poured on some snow, or when it will fall in long, fine strings when poured from the dipper. It should be poured into a box or trough made for that purpose, and stirred vigorously for a few moments, and then dipped into the cake moulds, which should be of tin, and should be wet to prevent the sugar from sticking. If stirred or grained sugar is desired, it should be stirred until thoroughly dry. Some prefer to boil the sap until it is molasses, or soft sugar, and then keep it in a tub. For the farmer's use this is much the best way, but if it is desired for market, it is best when made into small hard cakes, or in dry, stirred sugar. The scum

taken from the syrup while boiling should be saved and added to the settlings and boiled and will make inferior but tolerably good sugar. It should be skimmed, and the scum will do to make vinegar, which though hardly equal to that made from cider, is a very good substitute, and some think it quite as good.

Farmers who make maple sugar should have a shed to protect their boilers and store tubs from the snow and rain, and should have a suitable building in their sugar groves, where their buckets and other implements can be kept, until they are wanted again, after being well washed, as they always should be at the end of each sugar season. The business of maple sugar making, can, with proper management, be made both profitable and pleasant, and like all other farm labor, if not properly managed, will often be unprofitable and unpleasant. And many who find it profitable, even with rather poor management, would find it much more profitable if they would do their work better.—*FRANCIS, in Boston Cultivator*.

FARM MISCELLANEA.

Profits of Fowls.

J. M. S. of South Walpole, writes to the *Boston Cultivator*: "In regard to my experiments on fowls, I would say that I ascertained that fifty of our common barn-yard fowls would consume half a peck of corn per day. Now if corn is one dollar per bushel, and eggs 18 cents per dozen (which I think is the average price of both), it would take about eight eggs to pay for the corn consumed by fifty hens in a day. It is very evident to any one that the above number of fowls, if properly fed, would average more than eight eggs per day."

A good use of hen manure is to compost it with muck two or three weeks before it is wanted. In the proportion of three parts of muck to one of manure it is excellent to give Indian corn a start by putting it in the hill at planting time. Do not put ashes or lime with it, as they tend to liberate the ammonia. Plaster will not fix the ammonia unless it is in solution, and it requires about seven hundred times its weight in water to dissolve it. In a dry state, plaster will liberate ammonia, according to experiments of Mr. Pusey and others, which have been published.

Housing Cattle.

An English experimenter writes "last autumn I tied up four bullocks under a hovel, three in separate boxes, and kept seven loose in two yards, four in one and three in another, each having a hovel or shed to run under. The fourteen beasts were all alike in age, and were treated in the same way, namely 8 lbs. of Linseed cake each per day, three quarters of a bushel of mangel wurzels, and hay or oat straw distributed equally to all. Those shut up in the boxes, and those tied up were all ready for market first, and those fed in the yards replaced them in the boxes, but when they came to be marketed, it was found that they were not ready by a month as early as those that were tied or fastened up."

Maple Sugar.

The *Scientific Artisan* contains the following brief, but excellent suggestions relative to sugar making, which are in season at this time:

"It is impossible to make good maple sugar unless the sap is boiled soon after it runs. If it is allowed to sour in the least, the iron vessel in which it is boiled will darken the color of the sugar, giving it a disagreeable taste, and very injurious to the health of those who use it. Never allow the sap to burn on the top of the kettle, and every time you fill it up, wash it off. You can remedy this by setting your kettle in an arch, leaving a part of your kettle down as low as the line of division between fire and no fire. Never allow your syrup to stand over night. Make your syrup so thick that one quart will make one pound of sugar, and let it get perfectly cool before you sugar off. Stir in a little milk; then keep it over a moderate fire until it is skimmed, and be careful not to burn it afterward. Stir the sugar while it is cooling, either perfectly dry or broken, or make it into lumps at pleasure. Never pour hot sugar into wooden vessels."

A Great Trial of Horses.

A great contest between the produce of two celebrated blood horses, is to come off at Camden, in South Carolina, next fall. Major Bacon, the owner of a colt named "Jonce Hooper," from the imported thoroughbred Albion, having challenged any three year old for a trial of four mile heats, for \$10,000, the glove has been taken up by Messrs. Doswell of Montgomery, Alabama, who have named their three year old colt "Exchequer," from Revenue, as a competitor. This will be one of the most important trials of the produce of horses that has been had in some years.

NEW ADVERTISEMENTS.

L. J. BURN, Toledo, O. American Harvester.
M. M. MURRAY, Fowlerville, O. Sweet Potato Plants.
A. S. BROOKS, West Novi. Shorthorn Cattle for sale.
Supt's PUBLIC INSTRUCTION, State Teachers' Institutes.

MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, MARCH 17, 1866.

Editorial Miscellany.

Dr. Oakley's experiments on feeding horses was crowded out of last week's paper, but our readers will find it in this one, and well worthy of attention.

In the column headed, "Stockbreeders' Column," of the advertisements, it will be noticed that Mr. A. S. Brooks offers for sale several head of stock, that are worthy of the attention of those desirous of making purchases; and we call attention to the breeding of "Sunrise"; his dam Camilla presents a descent that is not to be excelled.

We learn that Mr. F. E. Eldred has sold his well known Glen Black Hawk, to Mr. C. Fullington, of Milford Centre, Ohio. This horse is a fine traveler, a very stylish and rapid trotter, of kind temper, and has left some fine colts in this neighborhood. He was bred from Lone Star, out of a large well bred mare, and will be found a good and useful stock getter.

The Normal School at Ypsilanti closes its term the present week, and opens again on the 10th of April. The opening has been postponed a week, to give time to get the new building fully ready for the reception of the students. We learn that the building is in every way a great improvement on that which was burned down, and better fitted for the purposes for which it is to be used.

The editor of the *American Stock Journal* some time ago notified the public that a history of the imported Messenger horse and his descendants was in preparation, and that he was desirous of obtaining all the information possible about him, and about those horses which were known with certainty to be of his stock. It seems that but a few have responded to this call, and but little information has been added to that which was already known, and in the hands of the gentleman who is preparing the history.

We publish in another column the programme of the Teachers' Institutes for the present spring, as directed to be held by the Superintendent of Public Instruction. The Institutes of the past year were the occasion of much congratulation to all who attended them, and the friends of education in their several localities, were well satisfied with their utility and efficiency. The Institutes of the present year promise to be fully as interesting and useful, and should be attended by all the teachers who can make it convenient to do so.

The Executive Committee of the State Agricultural Society at its last meeting tendered an invitation to the Hon. Cassius M. Clay, the distinguished Farmer and Stock Breeder, of Kentucky, to visit Michigan at the next annual exhibition, and deliver the address before the Society. We are pleased to learn that Mr. Clay has accepted the invitation, and will be with us on that occasion. Few men have given more attention to agricultural pursuits than Mr. Clay, and his presence during the fair of the State Society will prove a most acceptable and pleasing feature to all our citizens, by whom he will be most heartily welcomed.

The editor of the *Saginaw Courier* has been on a visit to Tuscola county, and after his return thus reports of what he thought he would find a wilderness: "We had pictured to ourselves a passably decent half-tamed wilderness, instead of which we saw, all along, a splendid country, high and handsome, thousands on thousands of acres of fruitful, well cultivated fields, worlds of magnificent oak, pine, ash, beech, maple, walnut, and other timber, pure water, thrifty settlements, and every indication of wealth in the soil and worth in the people."

Dr. Manly Miles, the assistant State Geologist, has been appointed to the chair of Geology and Animal Physiology at the Agricultural College. We learn that but twenty-three or twenty-four students have entered the institution for the present term as yet. Many of those who attended last term, are as yet engaged in teaching school, and have not yet got through their engagements. But we were in hopes to see the advantages of the institution more fully appreciated than such a meager class as this shows. There are accommodations at the college for eighty students, and perhaps ninety with every room

filled, and it certainly needs fully that number to perform the work incident to the estate, in its several departments, if it is to be done, without hired help.

State Matters.

The political matters in the State seem to be rather mixed at present. There is a good deal of anxiety felt as to the result of the town meetings which will take place next month. In some of the villages, the result of not giving attention to the details of the registry law, has caused a good deal of annoyance, and in some places no election has been held, or the election has had to be postponed. This feature of the registry law will probably not be found so difficult to get along with after the first trial. The Republicans are holding their county conventions to send delegates to the State convention, which meets on the 2nd of May. So far the general feeling of the State is as strongly pronounced for Mr. Seward as the candidate, as it was on the Democratic side for Mr. Douglass. The Phenix Bank case is exciting some attention. The Attorney General having gone to New York, to argue it before the Court of Appeals of that State.

Congress for the Week

The Senate has been occupied during the past part of this week with the case of Rev. Thaddeus Hyatt, who was brought before them for contempt in refusing to answer the summons of the committee to appear and answer relative to the Harper's Ferry affair.

The printing of post-office blanks has been agreed to be stopped until further action by congress.

The resolutions directing Mr. Hyatt to be confined in jail until he concludes to testify before the committee, were passed by 44 votes to 19, and Mr. Hyatt has been sent to jail. Mr. Toombs of Georgia has introduced a bill to provide for a general bankrupt law. Mr. Sumner paid a visit to the Washington jail, and stated that he found it nothing more or less than a mere human sty, (fully as bad as the Detroit jail we suppose), and moved that some improvement be made in it. The bill for the support of the West Point academy, with a section providing an appropriation for the pay of a regiment of Texas mounted volunteers passed the Senate on Wednesday.

The House, does not appear to get along very well with its printing business. The disclosures made relative to the immense profits, and the uses to which these profits have been put, seem to make the members anxious to change the method of doing the work. The proposal now is to establish a government printing office.

The Menomonee Indians and their rights to lands have been brought before the House. The Williamson and Sickles contested seat is under consideration, and the case does not seem likely to be terminated for some time. The Homestead bill has been passed by 114 to 62 votes. The committee on expenditures have in preparation a report which will show the extraordinary profits of this branch of the public business, and also the uses to which the profits were applied. This expose, if made in detail, will probably be one of the "nine days wonders," that will astonish the nation. The bill inviting proposals for carrying mails over a single route to the Pacific has been passed and sent to the Senate. A bill to prevent the establishment of places of deposit for letters except such as may be authorized by the post-office department, has been introduced. Mr. Kellogg of Illinois has restated the charge that Horace Greely planned to elect Mr. Douglass Senator, and threatens to bring out the documents.

The contested seat between Blair and Barrett of the St. Louis District is to come before the House this week. The judiciary committee seems to be laying out some business for the House. Mr. Hickman has introduced resolutions of inquiry as to by what authority an army force is employed as a posse comitatus; also, to report on the legality of slavery in the Territories; also, on the propriety of paying claimants in the Armistead case; also, what legislation is necessary to ensure the faithful and efficient execution of the provisions of the constitution, in reference to the rendition of fugitives from justice; also, to report a bill providing that no contestant of a seat in Congress shall be allowed a salary unless his claim is allowed; also, calling on the Secretary of the Interior for a statement of the accounts of Pine, the late U. S. Marshal of Illinois, and whether he has ever been a defaulter.

Another member of the same committee has reported a bill, the substance of which is, that whereas polygamy has sought to take justification as a religious rite by the inhabitants of one of the Territories, and as no privilege of self-government requires or sanc-

tions such abomination, therefore be it enacted that the provisions or laws in the State called Deseret or Utah be declared null and void, and that persons guilty of polygamy be fined \$500 and be imprisoned not less than two or more than five years.

The N. Y. Horse Trade.

The New York *Tribune* makes the following remarks on the horse market in that city. They contain some suggestions that it will do our breeders no harm to make a note of. It will be seen that size is a desideratum, and considerable of a point with regard to price: "It is probable that a greater number of horses have been sold in this city in the first ten days of March, 1866, than in any previous year since the principal sale stables have been located in Twenty-fourth street. Good judges estimate the number sold at fifty a day. These were almost entirely work horses, and a considerable portion of them railroad and stage horses, such as ordinarily sell for about \$125 to \$135 each. The city and farm-work horses have sold from \$100 to \$250 each—very few at the highest figure. Generally speaking, the prices of horses this spring are almost precisely the same as last spring. The only difference in the market is, that owing to the favorable weather in February, and the first week in March, the business has been much more lively; more horses have arrived, and they have not, as they sometimes do, stuck on hand till they 'eat their heads off.'—In fact, the margin between country and city prices is so small, that horses cannot be kept on hand very long without danger of loss. As a general thing we cannot advise owners of horses in the country to bring them in for sale—better sell them at home. A farmer who has a horse or two for sale, has no business in this market, notwithstanding there are buyers for fifty horses a day. It is a business of experienced sharp-dealers—too sharp for green hands. Most of the profit of the trade here is in 'getting horses ready for sale.'—That is, in fitting them up—getting rid of their country appearance, or fitting pairs together by which the cost of horses purchased single is often doubled or trebled, and sometimes quadrupled. So it is sometimes by the discovery that the horse 'has speed'; that being an important item in the saleable value of a horse in this city. At present, the number of fast, or fancy horses on sale is not large; but there are some very valuable pairs and single ones. There is now a very fine string of such in Post's stables; and nine pairs and two single horses owned by Jorlemont, were expected to arrive to-morrow, from Central New York, valued at ten or twelve hundred dollars a pair, and one pair at \$1,500. This State furnishes more fine horses for this market than all the other States, besides a great many of the most saleable class of work horses. Pennsylvania furnishes a good many of our heaviest workers. We noticed an arrival of thirty-three in one lot this morning, some of which were very heavy, such as we often see attached to the city brewers' wagons. Vermont horses are generally too small for this market, though admired for their beauty of form and fine action. Mr. Macaulay has a stable full of Vermont horses that he has taken great pains to select, of larger size than the general run, and altogether they form a remarkably handsome collection. Some of the Morgans that have mixed with Messenger blood, so as to give them a standard of sixteen hands, are very much improved in our judgment. We noticed a mare of this mixture of blood, six years old, sixteen hands high, blood bay, and beautifully formed, good in harness, and delightful under the saddle, held at \$450. A pair of very nice Morgans, fifteen hands high, five or six years old, exactly matched in color, size, speed, and action, and able to make a mile in four minutes, are valued at \$700. By the side of these stood another pair of Morgans, from the same locality, of the same age and same coat to raise, offered for \$300. These were not quite 14 hands high, but well made, and looked as tough as wire-haired terriers."

Political Notes of the Week.

The majority for Wentworth in Chicago, is 1246, and much larger than was expected by his friends; of course, his party are considerably elated with the result.

Mr. Hyatt, who was brought before the Senate for contumacy, has given his reasons for not answering the questions of the committee.

Governor Letcher of Virginia has made a requisition on Governor Denison of Ohio, for the delivery of Owen Brown and Francis Meriam, two parties said to be engaged in the Harper's Ferry outrage. The Governor of Ohio declines to surrender the men, but his reasons have not yet been made public.

The tariff is undergoing considerable revision. The Pennsylvania delegation are recommending very strongly specific duties upon the various kinds of iron.

The admission of Kansas under the Wyandotte constitution is beginning to be looked upon as

standing a more favorable chance in the present session of Congress than it did some time ago.

The Virginia Legislature have decided against holding of a Southern convention for the purpose of organizing a southern confederacy.

The Homestead bill passed by the House of Representatives provides that any person who is the head of a family, or who has arrived at the age of twenty-one years, and is a citizen of the United States, or who shall have filed his intention to become such, shall be entitled to enter free of cost, 160 acres of public land upon which such person may have fixed pre-emption claim, or which may, at the time such application is made, be subject to pre-emption, at a dollar and a quarter or less per acre, or 80 acres at two dollars and a half per acre. No certificate or patent to be issued until the expiration of five years from the date of entry, and on payment of ten dollars rights are secured to the actual settlers, to issue to heirs and devisees. The lands acquired are then, in no event, to become liable for the satisfaction of any debts contracted prior to the issue of the patent.

Foreign Events.

Dates have been received from Liverpool to the 29th of last month.

In England the ministry had been sustained in a test vote, on a resolution relative to the budget, by a large majority. Lord Elgin is to be sent to China on an extraordinary mission, and arrangements are being effected for that purpose, so that it is possible there will not be any war.

The channel fleet of England has been sent to the Mediterranean, with a view of keeping in check Spain in her attempts to extend her territory by obtaining a slice of Morocco.

The proposals of England for the settlement of the Italian question have been rejected by Austria, but very courteously.

In the House of Commons attention had been called to the breach of the peace preparing to be committed by Sayers and Heenan in their announced combat. Lord Palmerston stated that the attention of the commissioners of police had been called to the subject so far as their authority extended, which was, however, only within the limits of London.

Mr. Bright is to be made postmaster general in place of Lord Elgin.

The war in Morocco is progressing, and the Moors are defeated at every point. Two of the great officers of the government of Morocco had solicited an interview with Marshall O'Donnell, for the purpose of proposing terms of peace; but no agreement could be arrived at. The truce was terminated, as no delay would be granted by the Marshall, neither would he consent not to occupy Tetuan. The Spaniards demand a large amount of territory, the residence of a Catholic bishop at Fez, and two hundred million reals, or about twenty millions of dollars. Both the army and the navy are making preparations to carry on the war with renewed vigor, their success so far being beyond all doubt, and Morocco will undoubtedly have to yield to the demands of Spain.

The news from France is not of much importance. The legislative bodies were to meet on the first of March.

The affairs of Europe seem to be more and more complicated. Austria claims the fulfillment of the treaty of Villafranca, and in the meanwhile it is announced by the London morning press that she has negotiated a new treaty with Russia by which it is agreed that the alliance with Russia will be renewed, and that Austria will conform her policy to that of Russia with regard to the Danubian provinces and Servia, and also concedes to Russia all her traditional rights in the holy places at Jerusalem and the East. In return Russia guarantees her against insurrection in Hungary and Venetia, or any other of the territories over which the House of Hapsburg holds sway. If this treaty be a fact, Austria becomes a satrapy of the Russian empire, and we will see how the rest of the great powers will permit this treaty to be carried out. In the mean while this annihilates all hopes of Hungarian or Venetian independence for the present, and rather complicates affairs.

The Italian question of the independence of the Duchies and their annexation to Piedmont, seems to have receded. Russia and Prussia object to the annexation proposed by the people, and on this pretext it is rumored that the French government have resolved that the project of annexing Tuscany to Piedmont must be abandoned altogether. The people of Tuscany will be called upon to choose a sovereign, and there will be no objection to their choice falling upon the Duke of Genoa, Victor Emmanuel's nephew. Secondly the Duchies of Modena and Parma may be annexed to Piedmont by the consent of the inhabitants. Thirdly, the question of the Romagna is to be reviewed, and will probably be submitted to a conference of the Powers, but still the idea of creating a separate State of the sovereignty of the Holy See, and annexation subject to that sovereignty either to Tuscany or Piedmont, is not abandoned. Piedmont will be required to adhere to these proposals, made under the threat of withdrawing the French army from Italy, and leaving her to the mercy of Austria.

All the complications show that the example of permitting a people of Europe to exercise any real independence is not to be allowed by the crowned heads, and seem to indicate that the King of Sardinia was right when he stated that the sword had some questions to settle yet.

Austria has put a stop to the circulation of the London Times throughout the empire.

The steamer Louis, bound to Marseilles, had foundered in the Mediterranean, and 500 persons were drowned.

The market on the continent for breadstuffs remains steady and unchanged, and though there is a little more firmness in wheat in the Liverpool market, there is no change in prices.

There have been some terrible shipwrecks. The Luna was lost on the coast of France with 107 souls; only one person was saved. A severe storm had occurred at Liverpool.

The Holy See and its cardinals have decided to test the preservation of the integrity of the States of the Church is intimately connected with the general interests of the church, and ought not to

be made a political question. Of course the rights of the people go for nothing with these officials.

The proposition for a conference of the five Great Powers has failed, owing to the refusal of England.

The remainder of the Indian submarine telegraph line has been laid, and communication is now perfect between Alexandria in Egypt and Calcutta and other Indian cities.

The Atlantic telegraph company have received £700,000 of subscriptions to renew the attempt at laying a cable across the Atlantic. The expenditures up to this have been 466,858 pounds sterling, or 2,331,790 dollars.

In Venetia, it has been determined that all persons who express themselves inimical to the government are to be compelled to serve in the Austrian army. The local authorities are to send lists of suspected persons.

The latest advices seem to confirm the fact that an Austro-Russian treaty had been agreed upon. Austria is about mean enough to do any thing, and we do not doubt that this treaty is made.

Scientific Intelligence.

The great total eclipse of the sun which takes place on the 18th of July next, is to be observed with more care and on a more extensive scale than any event of a like kind. The eclipse will only be a partial one in the United States, with the exception of a small part of Oregon and Washington Territory, but in Europe it will be total, and will continue longest in Spain and Algeria, when the total obscuration of the sun will occupy a space of a few seconds over three minutes.

It is known that the Astronomer Royal of England will go to Santander, and other parties will accompany him thither, to occupy stations at Portogalete, Bilbao, Pampelona, &c. The Bavarian Astronomer proposes to place himself near the mouth of the Elbe, on the Mediterranean, and the French will occupy Palma, in Majorca, and Bugia, in Algeria; so that there will be near a hundred European observers stretched along the centre of the shadow, in Europe and Africa, a force ample to gather a rich harvest of physical results as well as of corresponding data for geographical questions.

Dr. J. J. Hayes, who was surgeon of the Kane Arctic Expedition, has raised \$10,000, one half the sum necessary for another expedition to the north pole. The special object of Dr. Hayes's proposed expedition is to determine at once and forever the question of an open Polar sea, which Lieut. Morton saw, and the existence of which would seem to be established by a variety of circumstantial evidence. This sea Dr. Hayes hopes to reach by making the principal portion of the trip on dog-sledges—vehicles by which he and his associates rode over a thousand miles on the previous expedition.

The North American Telegraph Association have been in session in Washington for the past week. They have succeeded in effecting arrangements to construct a line to California, provided Congress shall authorize a contract for the government business for ten years at the low price of \$50,000. We may now look for some practical results to the government and the public growing out of this effort to construct a line to the Pacific.

General News.

Very large flocks of pigeons have been seen going northwards for the past two weeks. They seem to be full early, if the weather of the past week is to be taken as the rule.

The loss of the steamer Hungarian is not yet accounted for. It is supposed that she struck about midnight when all were below and the watch, and went down immediately, before any effort could be made for safety by either passengers or crew.

A man by the name of Ritter, who was in the habit of getting drunk, and using offensive language to the officers on board the U. S. frigate Brooklyn, was punished by being gagged with the handle of an old paint brush, that caused his death.

The Common Councilmen of Pittsburgh are in custody of the officers of the Supreme Court of Pennsylvania for disobedience and contempt of Court. The Common Council of Philadelphia were about to tender them the hospitalities of the city, but when the facts of the occasion of the visit were stated, the motion was postponed, and the Councilmen of Pittsburgh denounced as repudiators and criminals.

The widow of David Crockett died lately in Texas at the age of 74 years.

We see it stated that a widow lady named Mrs. E. B. Day, of Sturgis, has been found to be the heir of Sir Francis Drake, and of a fortune of only forty-eight million of dollars. Perhaps the story is true, but it has a very Münchhausen air about it.

Later.—It is stated that the above is a hoax, Sir Francis having no heirs.

A large number of noblemen will accompany the Prince of Wales on his visit to Canada the coming summer.

The *Coruna Journal* states that the D. & M. Railway Company are about to build a branch railway to the coal mine of Hulbert and McArthur situated about a mile north of the village. The coal of this mine is said to be excellent in quality.

C. Boyington, a clerk in the stationery room of the House of Representatives, has defaulted with about 200,000 of post office script which he had been entrusted with for collection.

A serious difficulty is reported between Mexican and American residents at Mesilla in Arizona Territory. The Mexicans outnumbered the Americans, several were killed on both sides, and troops were sent for from Fort Fillmore.

The Maryland Legislature has adjourned.

Two steamboats on the Mississippi, the Wickman and the Belle, have been destroyed by fire.

The Louisiana Legislature have passed a law allowing an inter-act of more than eight per cent.

The New York Bank statement of this week shows a large increase of loans.

A great excitement has been occasioned in Syracuse, N. Y., a man named Tinker having poisoned himself and his two daughters.

430 tons of plaster have been shipped from Grand Rapids during the past week.

The charter election in the village of Allegan has been postponed on account of a non-compliance with the requirements of the registry law.

The Controller and city Clerk of Milwaukee have been arrested on a charge of forgery.

There were four hundred applications for the ten cadetships at West Point that are at the disposal of the President.

Navigation is open between Toledo and Dunkirk.

The Supreme Court at Washington is about to try a claim for the land on which is located the whole city of San Francisco.

It is proposed to call the new Territory of Pike's Peak, Tobosa, which signified "Dwellers on the Mountain Peak."

The splendid new steamer Adriatic, which has been so long in preparation as one of the Collins line of steamers, is to make five trips across the Atlantic the coming season. Starts for Southampton on the 14th of April.

The Household.

"She looketh well to the ways of her household, and eateth not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

MARCH.

BY ADELLA G. WILLEY.

March!—The winds are chilly yet,
Not a leaf is on the tree,
And the sun can scarce forget
Winter's cold austerity.

March!—The clouds send through the sky,
Silver breaking over blue,
And their fashion as they fly,
Seems the same, yet ever new.

March!—The snow bird folds its wing,
Hushes up its whistling song,
And, sweet harbinger of spring,
Phoebe wakes her tender song.

March!—The icy bonds are rent,
Waters leap to meet the sun,
Which in brightness o'er them bent,
Warm the wave it looks upon.

March!—But April follows on—
April, sweet, capricious thing,
Then bright May, the dearest one,
Making whole the matchless Spring.

March!—And soon the flowers will bloom,
Leaves will tremble, forests ring
With the song of birds who come
Singing "Hail the march of Spring!"
Detroit, March, 1860.

The House—A Lecture.

BY RALPH WADDOUGH EVERMORE.

Our special reporter from one of the inland cities of our State furnishes the following able "critique" of a lecture on "The House," lately delivered there by the popular philosopher and lecturer, Ralph Waddough Evermore.]

Knowing that the FARMER is interested in the diffusion of literature through the State, I send you this brief synopsis of one of the best lectures ever listened to by the Swallowall Literary Association of this highly intelligent city. Every sentence was received by the audience, (what there was of them) with most profound and impressive silence. In the words of the editor of the *Flaming Torch* "they eagerly devoured all he said, and yearned for more." To quote still further from the *Torch*, "no synopsis of the lecture can do it justice; to condense the speaker's sentences would be to spoil them; and it were futile to attempt condensation of his thoughts."

The lecturer began by saying that the house is the habitation of man. Of itself it is only a house, wooden, or brick, or stone or other material. With its inmates it constitutes a household. Simply as a house it is without character, like the body without the soul. There are various ways of building houses. Some are tall and large, others smaller. Some are suited to rich men, some to poor men. We can tell by a glance whether a house is large or small. An old house freshly painted will often look as well as new. The main object of the house is to afford shelter. Some houses do this imperfectly.—The defects in most cases are in the exterior. Sometimes in the roof, sometimes the walls. Windows are to the house what eyes are to the body. People look through them.—Sometimes they are curtains, as the eyes when we sleep. A house may be varied in size, to hold one person, or many. Sometimes you can judge of the furniture of a house by the people who come out of it.—Sometimes not. The reputation of the inmates usually gives reputation to the house. Some houses excel in beauty of structure.—Others no not. Some houses are built in the city, some in the country. Each has a form of its own. They stand in different relations to each other. Some are side by side, some back to back. Others are isolated. Houses are said to be contrivances of men to keep women in. Sometimes they answer the purpose, sometimes not. The fault is not always in the house. In building a house materials of various kinds are required. Sometimes nails are wanted, sometimes mortar, or glass, or wood, or stone. A house cannot well be built entirely of any one of these. If you read history, and search the records of the ancients, you will find that the house is an institution of antiquity. The first we read of is the one that John (vulgar, Jack) built; then we hear of the house of Hapsburgh, the White House, and various others. When a house is thrown off its centre it appears in a falling condition. It may fall, or it may not. A lady once asked a man what kind of a house he liked to live in. He said he liked to live in the one where she did. This savors more of the man than the house. Take an old house and live in it many years, and it will be an old house still. Go into a new house and it is new when you go in. Walls are necessary to sustain the roof of the house, but something more is needed to fit it fully for the habitation of man. Still, with only the walls and roof,

it is no less a house. A man who had great opportunities for observing houses, once remarked that he saw a very striking difference in the appearance of many of them. From constant exposure to the open air, many houses have a weather-beaten look. Others do not. Doors are made to houses for the ingress and egress of their inmates. Our social life is mostly confined to houses. Our public life is on the streets, or in shops, stores or offices. One house is commonly the dwelling place of one family. Sometimes more. Every house is supposed to have an owner. Sometimes the owner of a house is its builder. Sometimes not. And vice versa. We can judge of the situation of a house by seeing where it stands. Rich men usually have fine houses to live in. Very poor ones do not. Houses are of various forms and colors. Tastes differ, and so do paints. Some houses are white.—Others are not. Houses are subject to the action of the elements. Sometimes they are rained upon, or blown down by the winds, or struck by lightning, or burned by fire. Sometimes not. Old houses are sometimes torn down to make room for new. Commonly new ones are better than the old. There is a difference between a house and the idea of a house. The idea might exist in a man's brain. The house could not. Otherwise every man could have a house of his own.

Here the lecturer sat down, and only the intense feeling pervading the scattered audience prevented them from manifesting their appreciation of this wonderful effort by a tumultuous burst of applause. They quietly dispersed to their homes, remarking by the way, that never in their lives before had they listened to such a lecture. "Such a terse, vigorous, epigrammatic style!" said one.—"Yes; such short, clear cut sentences; each complete and perfect in itself!" said another. "Ah, that charming monosyllabic style! that pure, unadulterated Saxon! How intensely delightful!" exclaimed the intellectual young lady who was my companion.

These are but faint expressions of the general satisfaction felt by those who were so lucky as to hear the lecture. The thanks of the entire community are due to the enterprising officers of the Swallowall Literary Association for having, at such great expense, secured the services of a thinker so profound, a philosopher so eminent, and a speaker so eloquent, to close up their course of lectures for the season. What is the outlay of a hundred dollars or so compared with the gratification of having such an intellectual feast? Nothing.

Mrs. Croaker.

Mrs. Croaker came in the other day with the same frown I have seen on her face every time she has shown herself, either in the street, in her own house or in mine, for the last ten years. It was a warm, bright day, one of those soft, balmy ones that came the first week in this changeable month of March. You would not have thought cause for complaint could have been found in the heavens above, or the earth beneath, or the air between.—Yet here was poor Mrs. Croaker as full of trouble as the air was of sunshine.

"O, dear!" said she, "did you ever see anything so out of season as this? It does not seem like March at all. I am sure it can't be healthy to have such weather as this so early. Don't you expect to hear of everybody being sick? I am sure we need not look for anything else, and then all the fruit will be killed I know, for we shall get pay for this in cold storms and hard winter weather by and by, just when we ought to have it pleasant."

And so she ran on for half an hour or more, fretting about the weather as if the Maker of it was not as wise as she, and did not know so well what the world wanted.

To-day she came in again. The March wind was on its high key, blowing down a perfect hurricane from the cold North-west, but Mrs. Croaker was no better pleased than she was with the sunshine and soft airs of last week. The frowns on her face were as dark as ever.

"It beats anything I ever knew," said she, "how the wind does blow! It's more like November than March, with this spitting of sleet and snow, and the ground frozen as hard as a rock. Did any one ever know such dreadful weather at this time of the year! I know it can't be healthy; such windy weather never is. I can feel it full of coughs, and sore throats, and rheumatics, and consumptions. It's just what the doctors like, and they will have plenty to do. Every child in the neighborhood will be having the croup.—And it's dreadful for the wheat and the fruit trees. I expect to have to live on corn and potatoes the year through, if I live at all; which is very doubtful with such weather as we have."

Poor Mrs. Croaker! The weather will be

the death of her yet. Since I have known her there never has been a day that suited her. I have heard of "moon struck" people, but Mrs. Croaker is what I should call a miserable weather-beaten woman.

John Farmer's Defence.

Mrs. Adams—I don't like the idea of bringing our family jars before the public, but as "Farmer's Wife" has told "all the world and the rest of mankind" about my not praising her bread, I feel called upon to defend myself somewhat, even at the risk of making private matters public. As to the bread question.—Why should I praise *wife's* bread? Is she not my own wife? The one I have supported these five years? and is it not her bounden duty to furnish for my table the best of cookery, whether I choose to supply her with the best of material and utensils or not? Wives should know how to make the best of every thing. What if I do get "grown flour" because it is cheap? Some folks know how to make good bread from such flour, and why not my wife? Perhaps you'll say it's because she don't read the papers, or don't spend time talking with Mrs. M., or Mrs. N., about their way of making things. Well, what if she don't? In my humble opinion, papers and visiting were never intended for the wives of such men as us. To be sure, we are obliged to read, and attend clubs and debating societies, or drop into a neighbor's of an evening to get his "experience," or we should soon get behind the age—and young men need to go out in society to look for and court their future wives, and young women need to go out to please their beaux, and to enjoy social life; and it's all right that they should, for youth is the time for enjoyment, but all reason teaches us that after a woman is married her place is at home. What were wives invented for but to be the best and *cheapest* of servants? and is it cheap for a wife to be spending her husband's time reading cookery books, or gadding round the neighborhood gossiping with Mrs. This or That about the comparative merits of hop yeast and salt rising? I think she had better be at home picking up chips to keep her oven hot. What if our old stove is a poor pattern, and full of cracks at that? I know as good bread as ever was eaten has been baked in it, and can be again. I repeat, there is no use of married women's reading newspapers or going out visiting. Does not even St. Paul (the greatest woman's rights' man of Bible times) say that "if a woman would learn *any* thing, let her ask her husband at home?" And haven't I told my wife time and again (even without her asking me) just how my mother did every thing? Ah, those old time days when every thing went right; my mother always had good bread, at least father said so; he used to say "when the bread was heavy, it was good and sweet, and when it was sour it was good and light." And my mother's cake, too! Why, if it was only molasses-gingerbread, father would say "it tastes just like my sweet-heart's lips, better than candy." Ah, women now-a-days are not all called sweet-hearts after they are married, and whose fault is it? I should like to talk some more about my grievances, but Mrs. F. is doing a heavy churning with one hand, whilst she holds a cross twenty pound baby with the other arm, and I'm afraid some neighbor will come in and think mean of me for not helping her, (neighbors have such queer notions,) so I'll go to bed. Good night.

Yours, respectfully,

JOHN FARMER.

Nottingham, March, 1860.

Court Presentation.—The presentation of a lady at the English Court is thus described: "On getting out of the carriage everything in the shape of a cloak or scarf, even of lace, must be left behind; the train is folded carefully over the left arm, and the wearer enters the long gallery of St. James', where she waits until her turn comes for presentation; she then proceeds to the Presence Chamber, which is entered by two doors; she goes in by that indicated to her, and on finding herself in the presence-chamber, lets down her train, which is instantly spread out by the lords-in-waiting with their wands, so that the lady walks easily forward to the Queen. The card on which the lady's name is inscribed is then handed to another lord-in-waiting, who reads the name aloud to the Queen. When she arrives just before her Majesty she should courtesy very low, so low as to almost, but not quite, kneel to the Queen, who, if the lady presented be a peeress or a peer's daughter, kisses her forehead; if merely a commoner, holds out her hand to be kissed by the lady presented, who, having done so, rises, and makes another courtesy to Prince Albert, and also severally to any members of the Royal family present, and then passes on, keeping her face toward the Queen, and backing out of the door appointed for those who go out of the presence chamber."

Or Mazzini is told the romantic story that in early life he loved a beautiful countrywoman, who was torn from him by the church, and placed to wither in a convent. He then consecrated his life, through her, and no other passion has supplanted this of his youth! He corresponds with her still as if they were youthful lovers!

Great Men of the Bible.

BY SLOW JAMIE.

NUMBER NINE.

Isaac.—This Patriarch seems to have been more remarkable for a lovely character than great talents. Still, it may be that he possessed a latent power which was never called out; for his son Jacob, during the first sixty years of his life, was like himself, a plain man dwelling in tents, but when he took his staff in his hand and went out to push his fortune, he discovered a great mind. In proportion as trouble and difficulty increased, his powers were developed.

However, we deal with Isaac not as he might have been, but as he was. Within the bounds of Southern Canaan he lived and died, and the greater part of his long life was spent in the plains of Mamre. Although the acknowledged heir of a great estate, and the designated ancestor of a great nation, he lived forty years unmarried, and even then it was a servant, not himself, that went out to seek him a wife. Returning, they found him in the evening meditating in the fields. This sedateness arose not from apathy, for he proved a very fond husband. When the Philistines envied him, he meekly left their bounds; and when they afterwards sought alliance with him, he kindly complied. When his neighbors quarreled about water, he quietly withdrew, and dug new wells, till they got ashamed of themselves, and let him alone. When his own son obtained a blessing from him by deceit, he afterwards confirmed it. By the power of kindness, he gained as many triumphs, as others do by the force of arms. Even the boisterous and wayward Esau determined to wait till he laid his father in the grave, before he would imbrue his hands in his brother's blood. In this, as well as in other points, he was a type of his illustrious descendant.

Isaac was a child of promise, Jesus was the subject of prophecy. The birth of the former was extraordinary, of the latter it was miraculous. On the birth of Isaac a numerous household laughed with joy, on the birth of Christ the very angels chanted songs of triumph. Was the unconscious Isaac the cause of tears to the ejected bondwoman and her son? Two years after the birth of Christ there was lamentation weeping and great mourning. Was Isaac bound and laid on the altar while his father took the knife to kill him? Jesus was hung on the cross while his father said, "Awake O sword, against my shepherd." Had the Patriarch two sons, one of whom sought his blessing but did not obey his precepts? The Savior has two classes of followers, one of whom hears his sayings, but does them not. Did the former love Esau? The latter wept over Jerusalem.

Isaac's eyes were dim that he could not see; who is blind as Jesus? or deaf as the messenger whom God sent? (Is. 42, 19.) He is blind to our sins, deaf to our provocations.

Isaac sowed in the land, and received the same year a hundred fold; Christ is the sower who went out to sow, and of the seed that fell in good ground some brought thirty, some sixty, and some a hundred fold. More than that, there is a time coming when he shall sow a handful of corn on the top of the mountains, and the fruit thereof shall shake like Lebanon. When the Patriarch dug wells, they strove for them, and he moved elsewhere, till he came to a place where God made room for him. This he called Rehoboth—roomy places, and they became fruitful in the land. In the place where Christianity was first planted, the religion of the false prophet now prevails, and the true religion has removed westward. But the time approaches when

"His large and great dominion shall
From sea to sea extend.
It from the river shall reach forth
Unto earth's utmost end."

Another Royal Wedding.—It is said to be settled that the second daughter of Queen Victoria, the Princess Alice, is to have as husband the young Prince of Grange. The marriage is to take place on the anniversary of the Queen's birth day, on the 24th of May next. This intelligence comes to us from Brussels, to which city the young couple are to pay a visit after their union. King Leopold, the great uncle of the bride, is making preparations to receive them in the Belgian capital. The Princess will enter on her eighteenth year in April, and the Prince will have attained the term of manhood in September. The marriage is likely to be popular in England, where the memory of William the Dutchman is still held in high regard. This second son-in-law of the Queen is Rear-Admiral and Major General of the Dutch forces, high offices to be held by one so inexperienced; but there is little reason to believe that his naval and military talents, supposing him to possess such, will be called into requisition, until time has mellowed his judgment and developed his abilities.

Woman's Rights.—Dr. Monod says, "They who rock the cradle rule the world."

Household Varieties.

RECIPE FOR A WINTER SALAD.

BY SIDNEY SMITH.

Two large potatoes, passed through the kitchen sieve, Unwonted softness to the salad give.
Of mordant mustard add a single spoon—
Distrust the condiment that bites so soon;
But deem it not, thou man of herbs, a fault
To add a double quantity of salt.
Three times the spoon with oil of Lunca crown,
And once with vinegar procured from town.
True flavor needs it and your poet begs
The pounded yellow of two well-bolled eggs.
Let onion atoms lurk within the bowl,
And, scarce suspected, animate the whole.
And lastly, on the flavored compound toss
A magic teaspoon of anchovy sauce;
Then, though green turtle fall, and venison's tough,
And ham and turkey are not boiled enough,
Serenely full the epicure may say—
Fate cannot harm me—I have dined to day.

And so forth.—Brennan in his work on Composition, relates that a worthy writer once gave him a description of a visit to a country seat, in which the following passage occurred:

"He entertained us very hospitably with cakes, wines, fruits, &c., and afterwards showed us his library, museum, garden, spacious stables, &c.—On going away, he himself, together with his lady, their beautiful daughter, &c., accompanied us to the gate, preceded by two servants in dress liveries, with silver headed canes, &c."

Caught Peeking.—Several of the Walcottville ladies, in Connecticut, who were enjoying a jolly supper on their own hook, a while since, at the Allen House, caught a fellow "peeking" in upon their operations. The initiation performance of the Sons of Malta, as set out by Leslie's Pictorial, don't begin with the tribulation the poor fellow went through before the jollying females let up on him.

The Worst Strike Yet.—A few days since a young butcher in Newburyport brought down his cleaver to strike off a piece of meat, when, instead, he chopped off the end of one finger. In consequence of this wound, using his knife awkwardly, in attempting to cut through a piece of beef, he struck deeply into his nose, nearly severing that prominent member from his face. A physician took a few stitches to attach the parts; but the young man has now become thoroughly disgusted with strikes.

A Fashionable Lady Described Geometrically.—(Seen from behind.) Conical, base equal to seventenths the axis—four voluted zones equi-distant on the planes of the sides—cone truncated one node from theoretical apex, with a warped surface placed diagonally upon the parabola of truncation, intersected by the quadrant of a sphere, and it again by irregular polygonal planes, of half the diameter of the sphere, sloping downward in the angle of the co-sine of the longitude of the figure.

Before the Flood.—A worth keelman, formerly living at Paradise, near Scotswood, was once under examination at the Assizes, when he was asked if he knew Mr. —? "No," he replied, "but I saw his father." "When was that?" "Before the flood." "Now, my man," inquired the learned counsel, (who knew nothing of the flood of 1771, and thought to be down upon the witness,) "where did you live then?" "In Paradise, tiddy sure!" A roar of laughter completed the amusement and discomfiture of Horsehair.

The State Normal School.

One of the most useful and successful institutions of our State is the Normal School at Ypsilanti. A little information respecting the philosophy of its operations is asked for by one or two correspondents, and may be quite as acceptable to many others. In reply to a few questions that have been asked, we give the following synopsis of its operations and aims, as stated by the Principal of the School, Professor A. S. Welch, in the last number of the *Journal of Education*.

The students are divided into five classes, known as the B, C, D, E, and F, Divisions. The B class is composed of applicants for admission, who present themselves at the beginning of each term. They are required to go through with a thorough examination and review of such studies as practical Arithmetic, Grammar, Local Geography, Spelling, Reading and Penmanship, and also to sign a declaration of intention to teach in the schools of this State. This class is made up mostly of young men and women who have had just enough experience in teaching district schools to learn their own defects, and the need of a better preparation for the teacher's work.

The C class comprises the more advanced pupils, or those who have passed through the first term in a satisfactory manner, and are prepared to finish advanced Grammar, Arithmetic (mental and higher) and common Algebra, and Natural Philosophy, and receive instruction in Singing, Drawing and Elocution. In both these divisions the instruction and training have particular reference to the preparation of the pupils for teachers; that is, the students are not only required to know a thing themselves, but they must also learn how to impart that knowledge to others.—Special instruction is given to the C class in a full course of lectures on the "Art of Teaching," "School Room Duties," &c., in which are presented the characteristics, manners and personal habits requisite to eminence and success in teaching.

To the most advanced classes, D and E, are given a course of lectures on "The Means of Moral Training," "Methods of Teaching the Virtues," &c., &c.; and they also are trained in experimental teaching, as the laws

MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.
Publication Office, 130 Jefferson Avenue.
DETROIT, MICHIGAN.

S. FOLSON,
WOOL DEALER,
90 Woodward Avenue,
DETROIT MICHIGAN.

THE MARKETS.

Breadstuffs.

The spring is opened, but as yet there has been little business done in produce, nor is there much prospect that there will be before navigation is opened through the New York via the canal. The trade in this city is quite nominal and local. There has been a slight advance in wheat and flour in the past few days, but we think it occurred more by the short supplies coming in, than by any permanent and steady outside call, or by advance in prices in other places. The New York prices for wheat and flour are given as lower, and trade dull and heavy, the only demand there being for the supply of the eastern and local markets. The range is \$4.00 to \$4.50 for good brands of western extra flour. Wheat is reported as heavy, and holders are willing to sell at a decline of 2 to 3 cents per bushel; prime white western has sold at \$1.60 within a few days. At Chicago there has sprung up some trade in grain, as the canal navigation is open in that State, and produce is beginning to move. The quotation for corn in that market is 44 to 45c, and oats are likewise declining there.

The European markets show no change, and breadstuffs are quoted as quiet and steady. No demand for American.

Flour.—The flour market has had a tendency upward for the past week, and \$5.50 has been the price given for some very choice extra. The supply is not large.

Wheat.—The quantity of wheat is light, and there has been but very little received during the week. First quality of white is quoted at \$1.80, and is sold at \$1.80 to \$2.00 according to quality.

Corn.—Selling slowly at 45c, and 50c. from wagons. The tendency is somewhat downward, and is probable that it will have that tendency for some time.

Oats.—Plenty at 35c. The demand is light as yet.

Barley.—In demand at full rates, and the best samples taken readily at \$1.87 1/2 per 100 pounds.

Potatoes.—The prices of these are becoming more and more in proportion to other articles. Bran is now down to \$1.10, and middlings are not freely at \$1.10, corn meal is worth \$1.12 per 100 pounds.

Potatoes.—Potatoes are coming forward in great plenty, and sell at prices ranging from 35 to 40 cents per bushel according to quality. Only the best picked meanecks or meanecks bring the highest rate named.

Butter.—There is no change in the price of this article, good roll brings 14 cents.

Eggs.—Are purchased at 13 cents per dozen, and are getting very plenty.

Apples.—Green apples are in demand, and bring prices ranging from 35 to 50 cents per barrel to 35c, and over 50c, only very superior qualities bring the latter price.

Live Stock, &c.

We note a rather better market for live stock this week, and heavier purchases. Smith of the Marine market bought from Amos Durham six head of cattle, averaging 1400 pounds, each at 8 1/2 cents. These cattle were of very good quality, and thus brought \$51.50 per head. A lot of twenty head of sheep in carcass was also purchased at 6 cents per pound. A lot of forty head of hogs was purchased from different parties at 6 1/2 cents. The hogs vary from 200 pounds up to 500 pounds. Lard is selling at 11 cents. Tallow at 7 cents. Hides are worth 5 1/2 cents for butchery, and country hides bring 6 cents. Large pelts bring \$1.50, but the price ranges from \$1.25 to \$1.50.

We note that the New York market is reported as having declined half a cent on live stock this week. This is not surprising. It is lent, and the fast in so large a population as that of New York must naturally affect the consumption in some degree. The telegraph report of the market is as follows:

Beef declined 1/2c on low grades; quotations moderate 8 1/2c; best 9 1/2c; premium 10 1/2c. Receipts 2,182. Sheep active at better prices. Receipts 5,800. Swine advanced slightly, and sold at 5 1/2c. Receipts 4,000. The reports of the Albany market are far from encouraging. The receipts have been very heavy during the week. We quote as follows:

About 600 head more than last week, and 1,000 more than were received here the corresponding week last year. So large a supply, in Lent, too, cannot but prove disastrous to drovers. The quality this week shows no improvement; many of the droves are not worth any more here than they would be at the West for packing. Prices are receding, and as we remarked last week it is extremely doubtful whether any thing like a permanent improvement will occur during the coming season.

Our market is unusually dull. The New-Yorkers are buying next to nothing, and the Eastern men are not doing much better, purchasing only sparingly, and pretty much on their own terms.

Freights are unchanged on the railroads. The propellers commence running on the river on the 12th, and are charged railroad prices, \$15 per car load.

The prices on all grades show a decline of a quarter of a cent per lb and are given as follows:

	This week.	Last week.
Premium	5 1/2c	5 1/2c
Extra	4 1/2c	4 1/2c
First quality	4 1/2c	4 1/2c
Second quality	3 1/2c	3 1/2c
Third quality	2 1/2c	2 1/2c
Inferior	2 1/2c	2 1/2c

We note that G. Macomber sold 26 Michigan cattle averaging 1855 lb at 4 cents and P. Bross sold 18 head averaging 1214 pounds at 4 1/2 cents.

Wool.

The prices in New York are quoted as—

Am. Saxony fleeces	55.00
Am. full blood Merino	46.00
Am. 3/4 and 1/2 Merino	40.00
Am. native and 1/2 Merino	38.00
Extra pulled	36.00
Superfine do	36.00
No. 1 do	30.00
Canada pulled	26.00

At Boston the quotations are—

Saxony choice	68.70
Saxony fleeces	56.00
Full blood Merino	52.00
3/4 do do	46.48
1/2 do do	44.48
Common	38.40
Western mixed	38.40

Choice Seeds by R. R. or Express.
Potatoes.—ISLAND PREMIUM COEN—An early and productive variety, decidedly the best for Northern cultivation. 50 cents per peck.
California Potatoes—large and productive; Siberian, a very handsome market variety; White Mexican, a "little gem" unsurpassed for baking; Early Shaw, the best early variety—each 50 cents per peck.

Tookey's Excelsior Sweet Corn—Early a foot long; each 10 cents.
Chinese Northern Sugar Cane—pure seed and warranted to grow. 25 cents per pound.
Hungarian Grass Seed—50 cents a peck. (See last week's advertisement.) Catalogue sent free.
The above seeds will be shipped as per order on receipt of price. Address D. D. TOOKER, 10-11 Napoleon, Jackson co, Mich.

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4-17

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Tapestry Velvet Carpet,
Tapestry Brussels do,
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Extra Super Ingrain,
Superfine do, Fine Ingrain do,
Cotton and Wool do.

Silk Damask, Worsted do,
Morroese, Druggete, Green Balizes,
Cocoa Matting, Plain and Check Matting,
Gilt Shade, Common do,
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Which we offer cheap for cash.

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IN 1854 I published in the "Farmer's Companion," an account of the new and important invention of Rev. L. L. Langstroth, of what he termed a "Movable-comb Bee-Hive." The subject of bee culture had always been one of no small importance in my view, and for the last ten years I have watched with great interest the progress of Bee-culture both in Germany and this country. Since the announcement of Mr. Langstroth's invention I have been watching it closely, until I am well satisfied, from a full trial, that it is the most important step ever made in bee-keeping. And after ascertaining that it was no humbug, but that it was truly a great improvement on the old mode of keeping bees, I purchased the right and title to Branch and St. Joseph counties, Mich., and now offer individual rights in those counties. I agree to return the price paid and make the bee-keeper, thus avoiding all risk on the part of the purchaser.

All other movable frame hives are infringements on the Langstroth Patent, and preparations are now being made to detect all such impositions on the public. Address me at Burr Oak, [4-3m] CHAS. BETTS.

10,000 2 YEAR OLD APPLE TREES.
We offer 10,000 2 year old Apple trees, (our selection of sorts) 8 to 4 ft., at \$45 per 1000.
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FOR SALE.
The subscriber, wishing to go west, offers for sale a fine Jack and Jenny and two yearling Milks. Will be sold at a bargain.
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Lima, Lagrange co, Indiana, Jan. 10, 1860. 3-4m

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Messrs. O. J. Wood & Co.,
Gentlemen:—I have heard a great deal about Professor Wood's Hair Restorative, and my hair being quite gray, I made up my mind to lay aside the prejudices which I, in common with a great many persons, had against all manner of patent medicines, and a short time ago I commenced using your article, to test it for myself.

The result has been so very satisfactory that I am very glad I did so, and in justice to you, as well as for the encouragement of others who may be as gray as I was, I have been greatly benefited for several years, caused by setting it aside, are unwilling to give your Restorative a trial till they have further proof, and the best proof being our demonstration, I write you this, which you may show to any such, and also direct them to me for further proof, who are in and out of the N. Y. Wire Railing Establishment every day.

My hair is now its natural color and much improved in appearance every way, being glossier and thicker and much more healthy looking. I am, yours respectfully,
Cor. Columbia and Carroll sts., Brooklyn,
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THE MICHIGAN FARMER.
ADMIRATION.

THIS Imported Thoroughbred Stallion will stand at the Stables of
A. L. HAYS, Marshall, Calhoun Co., Mich.

the ensuing season, 1869.
The terms of service will be Twenty-five Dollars, payable at the time of service, or in approved notes.
The season will commence on the first of April and end on the first day of July. All mares proving not with foal will be entitled to service free from charge the next following season.

DESCRIPTION.
Admiration is a rich bay, sixteen hands high, coming four years old and perfectly free from blemishes of any kind. He possesses immense bone and muscle and was pronounced by the most competent judges to be one of the most perfect thoroughbred horses in England. He is thoroughly calculated to produce stock that will combine blood with bone and first class symmetry. He obtained the first prize at the Yorkshire Agricultural Show 1859 for the best colt likely to make a Hunter, over 30 competitors. Also, the first prize at the Doncaster Show, for the best colt calculated to get Hunters and Carriage horses. He served a few mares in England last season and proved himself a sure foal getter.

Pedigree.
Admiration was bred by Mr. Johnson of Driffield Farm, near Driffield, Yorkshire, England. Sire, Sir Nestor. Dam, Polonaise.
Sir Nestor was by Ion, out of Palmyra; Ion by Cain, the sire of Imported Albion; Ion was out of Margaret by Edmund, and ran second to Amato, the winner of the Derby in 1855, and also second to Don John, the winner of the Great St. Ledger the same year. Ion was sire of Wild Dayrell, winner of the Derby in 1855, and of Tadmor, winner of the Gratitude stakes.
Palmyra, the dam of Sir Nestor and grandam of Admiration, was by Sultan, out of Hester by the Camel (sire of Touchstone), he by the celebrated Whalebone, by Waxy, by Pot 8 oca, by Eclipse, &c. Sultan was sire of Bay Middleton, imported Glencoe, and other horses of like reputation; he was by Selim, by Buzzard, by Woodpecker by Herod. Palmyra was also the dam of Tadmor.

Polonaise was bred by Lord Zetland in 1846, and was by the Provost, out of Siberian, by Brutandorf, grandam by Blucher; g. g. dam Opal by Sir Peter,—Olivia by Justice,—Cypher by Squirrel—Fribble's dam by Regulus, by Bartlett's Children,—Honeywood's Arabian, the dam of the Two True Blues by William's Turk, out of a Beyerly mare.

The Provost was got by the Saddler, out of Rebecca by Lottery, g. g. dam Anticipation by Beninbrough,—Expectation (sister to Telemachus) by Herod—Skim—Janus—Spinster by Crab—Widdington mare by Partner—Sister to Squirrel's dam by Bloody Buttocks—Greyhound—Makeloes—Brimmer—Place's White Turk,—Doodsworth—Layton Barb mare. The Saddler was by Waverly, the sire of Don John, out of Castor's mare.

Polonaise won four matches at three years old, beating at even weights Ethelton for £1,000 a side, Uriel £400 a side, two miles, Highland Fling, two miles, £200 a side, and Glance, winner of the Cambridgehire stake, for £500 a side.

From the foregoing pedigree it is clearly evident that Admiration combines the blood of the most celebrated Thoroughbred Horses.
Marshall, Mich., 1860. 10-11 A. L. HAYS.

1859. WINTER ARRANGEMENT. 1860.
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FROM DETROIT, Mail and Express, daily except Sundays, at 9:30 A. M., arriving in Chicago at 10:30 P. M., and Toledo at 12:27 P. M.
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FROM CHICAGO, Mail and Express, daily except Sundays, at 6:00 A. M., arriving in Detroit at 6:00 P. M., Chicago and Montreal Express, daily at 1:00 P. M., arriving in Detroit at 7:00 A. M.

FROM TOLEDO, Mail and Express, daily except Sundays, at 8:00 P. M., arriving at Detroit at 6:00 P. M., Chicago and Montreal Express, daily at 4:00 A. M., arriving in Detroit at 7:00 A. M.

CONNECTIONS:
Trains from Detroit connect at Adrian with Michigan Southern Main Line for Chicago, with New Albany and Salem Railroad, at the crossing of that line, and at Chicago with all Roads for the Northwest and South.

Connect also at Adrian with Jackson Branch Trains for Jackson.

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Trains from Chicago and Toledo connect at Detroit with Grand Trunk Railroad of Sarnia, Toronto, Prescott, Montreal, Quebec, Portland and Boston; with Great Western Railway for Niagara Falls, Buffalo, Albany, New York and Boston, and with Detroit and Milwaukee Railway, for Grand Rapids, Grand Haven and intermediate Stations.

FREIGHT TRAINS leave Detroit daily except Sundays at 5:50 A. M., arriving in Toledo at 11:10 A. M., and Chicago via Adrian at 5:10 next morning.

Leave Chicago daily except Sundays, at 9:15 A. M., and 8:00 P. M., arriving in Detroit at 9:00 P. M.

Passenger Trains for Cincinnati, via Dayton and Michigan Road, will take the 9:30 A. M. train from Detroit, which makes direct connection at Toledo with Dayton and Michigan trains for Lima, Dayton and Cincinnati.

Trains are run by Chicago time, which is Twenty Minutes slower than Detroit time.

Woodruff's Patent Sleeping Cars accompany all night trains on this route.

Time and Fare the same as by any other Rail Road route.

No change of cars between Detroit and Chicago. Baggage checked through to all points East & West.

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GENERAL SUPER, Toledo, Ohio.
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DRAIN TILE MAKER.

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The TILE MACHINE invented by JOHN DAINES, of Birmingham, Oakland county, Michigan, is now being manufactured in the most thorough manner, and is offered to the farming community as the

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These machines are made of iron, are easily worked, any man being able to manufacture a first rate article after a few hours practice.

They cost delivered in Detroit only \$100. They have two dies, for three and four inch tile; and extra dies to accompany the machine cost \$20 each.

These machines will manufacture per day, according to the force employed, from 150 to 2500 ROWS OF HORSESHOE OR PIPE TILE. The machine weighs but 500 pounds, and can be packed and sent to any part of the United States, or to foreign countries, as easily as a piano. With this machine, any farmer who has a fair quantity of clay on his farm, can manufacture his own Tiles at a cheap rate, and easily save the price of the machine by avoiding the cost of transportation. The machine when in operation, takes up no more room than an ordinary sized kitchen table; it may be worked by two or three men as may be found most convenient and economical, or a man and two boys can keep it in full operation.

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A compound remedy, designed to be the most effectual Alterative that can be made. It is a concentrated extract of Para-Sarsaparilla, so combined with other substances of still greater alterative power as to afford an effective antidote for the diseases Sarsaparilla is reputed to cure. It is believed that such a remedy is wanted by those who suffer from Strumous complaints, and that one which will accomplish their cure must prove of immense service to this large class of our afflicted fellow citizens. How completely this compound will do it has been proven by experiment on many of the worst cases to be found of the following complaints:

SCROFULA AND SCROFULOUS COMPLAINTS, Eruptions and Eruptive Diseases, ULCERS, PIMPLES, BLOTCHES, TUMORS, SALT RHEUM, SORE LEGS, STYLLIS AND STYLLITIS, AFFECTIONS OF THE THROAT, DYSPEPSIA, NEURALGIA OR TIC DOLOREUX, DERMATITIS, DYSPEPSIA AND INDIGESTION, ERYSIPELAS, ROSE OR ST. ANTHONY'S FIRE, and indeed the whole class of complaints arising from IMPURITY OF THE BLOOD.

This compound will be found a great promoter of health, when taken in the spring to expel the foul humors which fester in the flesh at that season of the year. By the timely expulsion of them many rankling disorders are nipped in the bud. Multitudes can, by the aid of this remedy, spare themselves from the endurance of foul eruptions and ulcers, or sores; diseases which the system will strive to rid itself of, if not assisted to do this through the natural channels of the body by an alterative medicine. Cleanse out the vitiated blood whenever you find impurities bursting through the skin in pimples, eruptions, or sores; cleanse it when you find it is obstructed and sluggish in the veins; cleanse it whenever it is foul, and your feelings will tell you when. Even where no particular disorder is felt, people enjoy better health, and live longer, for cleansing the blood keeps the blood healthy, and all is well; but with this purgative of life disordered, there can be no lasting health. Sooner or later something must go wrong, and the great machinery of life is disordered or overthrown.

During late years the public have been misled by large bottles, pretending to give a quart of Extract of Sarsaparilla for one dollar. Most of these have been frauds upon the sick, for they not only contain little, if any Sarsaparilla, but often no curative properties whatever. Hence, bitter and painful disappointments have followed. Still we can call this compound Sarsaparilla, and intend to supply such a remedy as shall rescue the name from the load of obloquy which rests upon it. And think we have ground for believing it has virtues which are irresistible by the ordinary run of the diseases it is intended to cure. In order to secure their complete eradication from the system, the remedy should be judiciously taken according to directions on the bottle.

PREPARED BY
DR. J. C. AYER & CO.,
LOWELL, MASS.

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NEVER DEBILITATES.
It is compounded entirely from Gums, and has become an established fact, a Standard Medicine, known and approved and is now resorted to by all who have used it, within the last two years who had given up all hopes of relief, as the natures in my possession.

The dose must be adapted to the temperament of the individual taking it, and used in such quantities as to act gently on the bowels.

Let the dictates of your own reason guide you in the use of the LIVER INVIGORATOR. It will cure Liver Complaints, Biliousness, Dropsy, Diarrhea, Summer Complaints, Dysentery, Dropsy, Habitual Constipation, Cholera Morbida, Infantum, Flatulency, Female Weakness, and may be used successfully as an

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All who use it in their favor.

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